

PUBLIC RISK FORUM

MAGAZINE FOR PUBLIC RISK MANAGEMENT

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Environmental Risk Management: What it is, What it is Not



Micro-Managing The Macro
Risk Management for the Future
Understanding Disaster Outcomes

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In the November 2007 issue of Public Risk Forum readers will find:

- Jules Muis identifies key risk management issues for the oversight of the global economy (pg. 5).
- Dr. Marcel Steward offers a framework for thinking about Environmental Risk Management and provides his thoughts on future challenges for managers (pg. 8).
- Our international round-up provides reports on environmental legislatives in the US, risk management awards in the UK, disaster management and planning in Japan and Australia, and the launch of a new PRIMO chapter in France (pg. 17).
- The Institute of Risk Management in London announces the roll-out of its International Diploma in Risk Management (pg. 30).
- The Public Entity Risk Institute (PERI) reports on recent research on disaster management (pg. 32).

...and much more.

From the Editor's Desk

By Dr. Peter Young, Managing Editor of Public Risk Forum



This is the fourth issue of Public Risk Forum. Over the past twelve months, we have advanced to a point where we are reaching nearly 70,000 managers in the US and Canada, Europe, Japan, Australia and New Zealand, and several other locations dotted around the globe. Our ambition has been to set a process in motion leading to the creation of a global community geared to an understanding of public sector risk management. We have a long way to go but, stepping back for a moment, we have to admit that the pace of growth has been a pleasant surprise.

Given the wide range of subject matter that might fall under the heading 'public sector risk management', we have begun to feature an important topic within each issue. And, we will attempt to dedicate at least a few articles to that selected topic.

This issue focuses on environmental risk management. Readers will quickly see that there are very different meanings assigned to the phrase 'environmental risk management', and – indeed – it may be one of those important ideas that cannot be contained in a single, simple definition. Nevertheless, there is a lot that needs saying about the subject and the public sector role in addressing environmental risks, and we hope to at least get the ball rolling here.

We are assisted ably in this ambition by Dr. Marcel Steward, who provides an extended essay on the meaning of environmental risk management, and offers a number of organizing ideas that will be helpful for public managers. Currently, Dr. Steward heads up Aon's Environmental Risk Consulting unit in London. He has a long and distinguished professional record and is widely regarded as one of the world's leaders in environmental risk management.

The November issue contains a couple other important features and I want to mention two of them. First, Jules Muis makes a very welcome return to PRF. We have asked him to work with EIRM to begin to build bridges into the 'multilat-

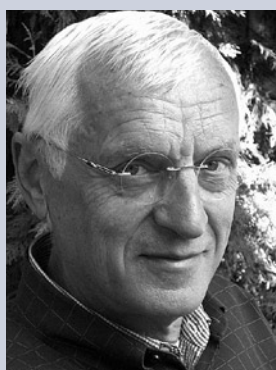
eral public organization' world (the EU, UN, World Bank, and so on). EIRM recognizes that large international organizations are an important part of the public sector risk management world, but there has been little effort to address risk management issues in such settings. Jules particular professional history serves him well in this issue, as he addresses the role of multilaterals in the global economy.

The second feature to mention is the article by Steve Fowler of the London-based Institute of Risk Management (IRM), which is launching its International Diploma in Risk Management in October. I will state for the record that I have been quite involved in the reengineering of the Diploma, so I am not an unbiased observer. Nevertheless, I encourage readers to look at the article and, if appropriate, follow up with IRM to obtain further information. The new Diploma aspires to become the global professional education standard for risk managers – in both public and private sectors – and it is quite different from any other program in the world.

Welcome to Public Risk Forum.

Micro-Managing the Macro

By Jules Muis, Former VO & Controller of the World Bank and former Director-General and Chief Internal Auditor of the European Commission



In common parlance, 'micro-managing' does not have a particularly heart-warming ring. It connotes decisions being made by bean counters at the expense of the bean makers. It sounds, in particular, un-sexy when put to those high-flyers among us who see it as their job to comfortably float 30.000 feet above the economic landscape.

A soft introduction to a hard landing of our financial system

I witnessed this phenomenon first hand some ten years ago in the slow-motion, tedious, surprise (re)discovery process of World Bank economists during the Latin American and East-Asian crises. At that time, we saw whole economies overturned by the tsunami effect of poor corporate accounting in combination with lax, unaccountable corporate or institutional governance principles. In the wake of the havoc that followed, the world and, grudgingly, the world of high-flyers accepted that good corporate and public sector governance, and processes as low in the occupational food chain as financial accounting, properly belong to the exclusive club of economic fundamentals. At least, it was conceded, they were preconditions for economic fundamentals to work. To my mind, it simply confirmed the age old adage that the quality of the whole is as good as the quality of its parts; and *vice versa*. That is, systemic macro-control concepts are not just empty baggage in academic discourse. They have their own real-world DNA.

Hence, at the turn of the 21st Century, we sternly lectured developing countries in the newfound good governance scripture. The lecturing continued until Enron and the dot.com crises signaled a new wake up call and reminded us that the cumulative effect of sound micro-housekeeping habits is not just of importance to fragile or emerging economies, but has its own universal application.

The sub-prime burning platform

The present sub-prime and financial systems crises reprise these past experiences beautifully and unsettlingly at the same time. With the seizure in liquidity and financial systems tightly wrapped around crises of confidence among banks in each other's balance sheets – the image of a burning off-shore drilling platform comes to mind.

Angst is still unfolding as I write, offering us a challenging opportunity to re-examine our latest found articles of belief. Particularly troubling is the question of whether we ever truly learn anything from the past. One might reasonably wonder whether we do ever learn, especially when the present context is held hostage by the age-old lures of the quick buck, propelled by the money pushing departments of our institutional money machines that make things happen, for better and worse. Can there be macro management instruments available for our lofty macro managers to assure orderly processes – and even if so – can they really influence and control the freedom of movement of too savvy or shrewd financial industry players.

“Particularly troubling is the question of whether we ever truly learn anything from the past”

I will address that question by a quick scan – top down – and by a selective risk assessment of the macro checks and balances. I will be focusing on the weakest links in the accountability chain, using the common-sense principles embedded in risk management widely applied at the micro level, but for one reason or another not catching on with our macro managers. I start from the general value judgment that unless we address the necessary fixes in our macro architecture, duly borrowed from micro risk management experience, self-inflicted macro financial crises will assuredly continue to repeat themselves. The fix will prove to be, for most part, motherhood and apple pie, and political wills willing. But are they?

The present financial crisis was predictable, has been predicted – indeed, I did so myself by co-authoring/publishing a ‘survival kit for accountants and auditors in a turbo derivative environment’ in the fall of 2005. We may have a global economy, we may have a global market, but we do not have global institutional ownership, steering mechanisms... hence accountability... based on a willing understanding of all the vital parts. ‘Let all flowers bloom’ has been the operating principle of our fragmented overseers of financial stability.

Thus, moving forward, a not overly intrusive dose of micro risk-management inspired cold water might come in handy. Let’s give it a try.

Ownership/the governance of governance

As I see it, we have no credible robust international financial architecture that establishes a macro accountability construct with clear ownership for material upheavals in the financial markets, nationally and internationally. The Financial Stability Forum (FSF) set up in the wake of the East Asian crises to see generally what it did not see in particular is, by its very own feeble coordinating and inventorying nature, establishing at best a debating club rather than, as advertised upon its inception, a financial fragility systemic assurance results-focused organization. The FSF has morphed into a global political think and talk tank, not a ‘do’ tank. Its reporting/accountability syntax is open-ended and open to interpretation. Most importantly the FSF will not give, and it is not expected to give, reasonable assurance as to “the absence of weaknesses in the architecture and/or its workings, that may form a material threat to the financial markets”.

Together with the politeness conspiracy- hampering a frank exchange of non-discussibles (see my discussion in the previous issue of *Public Risk Forum*), the FSF *modus operandi* adds up to a recipe for allowing slippery slopes

to be built on top of slippery slopes without anyone noticing. The FSF’s very own architecture is simply too fragile to carry responsibility for the world’s financial architecture. Hence, it doesn’t – which turns its effective existence into a dangerous illusion that we have a global financial system gatekeeper. *My proposal would be to at least force out in the open the limited comfort, if any, the FSF is able to give, by requiring a reporting syntax that makes clear not only the systemic risks as it sees it, but in particular also the unknowns in its operating equation.*

“The FSF’s very own architecture is simply too fragile to carry responsibility for the world’s financial architecture”

Macro-accountability constructs

This observation leads us to also note the absence of proper accountability constructs of all oversight bodies in our economies (regulators and compliance enforcement agencies themselves, national and international) as a precondition for the FSF to work. None are expected to do so, hence none do, in the context of their systemic remit, leaving an ever more interdependent financial system too much in the dark about the unknowns in the financial fragility equation, or even the most important impending risks. The reporting structure of our oversight bodies, including accounting and auditing bodies, is one of a new algebra that suggests one can ignore, or worse, that it does not account for unknowns in the financial system equation. The present construct does allow for plenty of politicized, occasionally useful, piecemeal expressions of selective comfort or discomfort; but lacks a results-based reporting syntax. This is too fluffy for anyone’s comfort, as we now see. At this moment corporate managements and their auditors, through SOX and the like, at the micro level, are the only actors expected to frame their assurances in an unequivocal reporting syntax. *It is time to elevate this useful micro-world reporting syntax to our macro managers few macro layers up, for all our comfort.*

Exotic financial products

We have painfully discovered over time that there is no substitute for getting things right at entry level. ‘Garbage in garbage out’ is a must in any management consultant’s power point presentation. Yet we have allowed the development of financial products/derivatives, useful as they may be in unraveling and re-bundling of risk profiles, to evolve such that the even the mathematical finance specialists,

buyers, and sellers of these products can be bewildered by them. In my view we have difficulties acknowledging that because there is money to be made through black boxes.

Alan Greenspan, the past Chairman of the US Federal Reserve, was allergic to regulating these markets, the assumption being that the markets would be self-cleansing. We have now come to discover that such belief – needless to say – is naïve. Indeed, such is that case that in mid-September 2007 market players are all anxiously waiting for the financial reporting shoe of key financial players to drop; and to see whether the assumed global risk spreading potential of derivatives has lived up to its professed potential. Central banks in the meantime are the lenders in last resort and serving as the last defense line before a run on our banking system by the banks themselves.

I first made a proposal some ten years ago, to limit trading in derivatives to those “dog-tagged” with a bar code reflecting the risk profile of the product in a universal risk language and it may be time to think about this idea again.

Exotic accounting of exotic financial products

Against this background of mushrooming creativity in the language of financial markets, accounting standard-setters and accountants have great difficulties keeping up translating these financial products into unequivocal accounting, the language of business. Not only are they confronted with the need of capturing economic substance over form of complex products expressed in legal language, but also they need to capture the purpose and intent of bundled transactions or embedded derivatives in all combinations and permutations possible. The accounting profession was and has been losing its breath in keeping up with both terminology and the nature of the mutating products themselves. Moreover, financial reporting is predicated on the intricacies of the micro-world, and not geared to the question whether it all adds up for the macro (i.e. to establish the macro effect of by definition zero sum transactions, such as swaps). Such leeway can lead to systemic distortions/ earnings mismatches by having counterparties with different income recognition/timing practices. We do not have double entry bookkeeping at the macro level for the same transactions, hence do not have a monitoring mechanism that watches for bubbles in the cumulative E, of the P/E equation.

This would in particular become a concern if there were orchestrated efforts to capitalize on such loopholes. But it has happened before that companies exchanged financial products- without exchanging risks - purely for the convenience of the income management of one of them. With

black box entities, such as hedge funds or conduits being exempted from public financial reporting, and mushrooming in our macro-economic equation, and with the ever increasing creativity in off-balance sheet financing, it will be interesting to see the coming couple of months whether my concerns are warranted.

My bet is that we will draw lessons from this all, independent of whether we will experience a soft or hard landing. I would see regulation changes to the effect that the key to public reporting requirements of an economic actor should not be not its *legal* but its *economic* status, individually or collectively, as a relevant variable in the macro-economic equation. Stress testing financial fragility by experience rather than by foresight will be seen as too reckless a proposition.

“My bet is that we will draw lessons from this all, independent of whether we will experience a soft or hard landing”

In closing

Whatever the outcome of the present crises, the coming couple of months are going to be eye-openers for those keen to see robust macro-risk management of the fragility of our financial systems. I find it hard to fathom that we will not see important lessons being drawn from the present deep freeze in credit. Our micro risk management toolkits have a wealth to offer in seeking solutions. Remember that there is little standing between the lenders of last resort and our economy as a whole. So reason to hope that the penny will drop that when top down macro risk management fails, time has come for bottom up, micro-inspiration, in seeking solutions; and ‘micro-managing’ may lose some of its bad name.

If the present construct is no a way to run a railroad, it certainly falls short of running our financial systems.

Environmental Risk Management: What it is, What it is Not

By Dr. Marcel Steward, Director of Environmental Consulting and Solutions (ECAS), Aon Limited



This article is written specifically for organisational leaders and risk managers in the public and private sectors. It will address basic, fundamental issues of environmental risk management from my personal perspective as an environmental consultant and risk manager who been active since the modern birth of my field in the early 1990's.

Introduction

I will not attempt to address how public and private sector entities can save the South American Rainforest, how the operations of these organisations can contribute to saving the Yangtze Dolphin from extinction, or the planetary impact of turning out the office lights when you leave work for your eco-friendly home. In my personal view there are blindingly obvious reasons as to why we must change the way that we live, - but I hasten to add they are moral or ethical goals that - while important - do not give us much insight into what risk managers should do. A more fruitful way of analysis is to recognise that these ethical goals reflect public values, which in turn have a direct impact on the reality of *commercial and political environmental risk*. In turn we must note that it is not the primary motivation for public and private entities to identify and manage their *commercial and political environmental risk* - per se. The primary reason for public and private entities to invest hard won cash, or risk political reputation (and votes) in risk management has to be the protection of the entity and the individuals with responsibility for running that entity, and for their future success.

Therefore the first step in managing the environmental risk of organisations must be to be honest and clear as to the objectives to be achieved. Clear identification of the objective will dictate the methods that we adopt in order to achieve it. Lack of clarity (or honesty) as to the ultimate objective will create lack of focus in the risk management approach taken,

the choice of inappropriate methodologies, and failure to achieve the commercial objective. At the end of the day, if well executed this will positively impact "the Environment". If we get it wrong... the Yangtze Dolphin is still dead.

The environment has never been higher in the popular consciousness. The consumers of our public and private sector 'product' are voting with their feet. It has become a 'board room' issue affecting supplier, consumer and voter alike. Those with risk responsibilities within an organisation must advise their organisation on the risk. It is their advice that is the basis of the board's strategy. Get it right and the organisation succeeds (positive), get it wrong and risk management has just been responsible for another cost (negative). The bottom line is that because the 'environment' (or what we individually conceive the environment to mean) is subject to an individual and emotional understanding, those with risk responsibility are inevitably personally and professionally accountable.

Nobody knows an organisation as well as those responsible for managing risk - at least this should be true. Therefore only such managers can provide leadership necessary environmental risk management response.

The objective of this article is to open up the concept of what we mean by environmental risk and its management, to help clarify what the real environmental risk issues that occupy

the Board's attention and what they really should be, and to identify some of the misconceptions to be avoided.

Environmental risk management: where do we start?

Q: Why does it take an accountant, a contract lawyer, a company lawyer, an environmental lawyer, an insurance consultant, an environmental consultant, and a risk manager to buy a company?

A: Because they all talk to the risk manager, but they don't talk to each other.

The Church of Risk Management has two immutable tenets:

- 1) If there is an area of risk there is *always* an expert.
- 2) If I get it wrong I can be blamed. If I pay an expert, they can be sued.

In my conception of Commercial and Environmental Risk there cannot be a single 'expert'; the field is too complex. Therefore, the risk must truly be managed.

Managers must make the best choice and efficient use of the internal and external sources of expertise available. Specifically they must select the areas of expertise necessary to address the commercial and / or political environmental risk.

In my experience we must assume that no area of specialist expertise will know or 'talk' to any other area of expertise. The recommendations of one expert will not be integrated in any way whatsoever with those of another. Indeed this is the product of the 'hire and sue' culture that we have created and which is now a fact of life that must be anticipated and managed.

The most successful (environmental) risk managers encourage and develop a relationship and rapport with and between internal and external advisors. The quality of the advice that they receive, the level of understanding and integration that is achieved and the savings in time and cost are orders of magnitude greater than the 'hire and sue' approach. This is specifically important to environmental risk, which is a rapidly emerging risk area subject to change on almost a daily basis. If an advisor trusts the risk manager he/she will guide the manager with respect to what they 'expect' to happen tomorrow, if he/she does not trust the risk manager, that manager will only be told what the advisor 'knows' is happening today.

What is meant by 'the environment' and environmental risk?

God, grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference.

Attributed to Reinhold Niebuhr

Pollution, brownfield land, particle emissions, effluent emissions, climate change, carbon footprint, carbon neutral, carbon trading, global warming, global cooling, recycling, waste recycling, electrical equipment recycling, packaging recycling, fuel efficient, fuel conservation, energy saving, energy efficient, sustainable development, sustainable redevelopment, etc. etc. etc. What do these terms all mean and how do they relate to each other?

It is important to differentiate what it is that we are managing within environmental risk management. There are now so many issues grouped together in the popular view that the 'environment' has become confused with environmental risk. The 'environment' is what it is – our physical surroundings. Environmental risk, within the context of this paper refers to those environmental aspects that affect an organisation. As has become very evident, mankind cannot fully manage the environment. However we can successfully manage environmental risk.

Environmental risk and liability are man-made concepts, whereas the environment (obviously) is not. The environment is frequently confused with environmental risk and liability. The environment can be defined by established parameters; the climate, temperature, weather, the biosphere. The environmental risk concept is evolving and changing as fast as our knowledge is changing and as fast as our consumer markets perception is changing. Therefore, environmental risk and liabilities are not the same for all organisations; neither are they the same for a single organisation through time.

In order to manage environmental risk and liability we need to define what we mean within the parameters of environmental risk management for organisations at this particular time. This usually means identifying what constitutes environmental risk to our organisations in the perception of our stakeholders, be that the individual consumers of our product, the business consumer who we supply with materials and parts, the shareholders and investors in our organisations, the business analysts who influence those shareholders, or the voting electorate.

Actual environmental risk and liability will frequently be different from the *perceived* environmental risk and liability of the private and public sector entity. Indeed both forms of the risk will require risk management, sometimes simultaneously and sometimes independently.

Environmental risk – why bother?

What environmental risk? Where are the prosecutions? Where are statutory enforcement orders? Is that all that the fine was? If it happens we will pay it out of petty cash

The Financial Directors' mantra

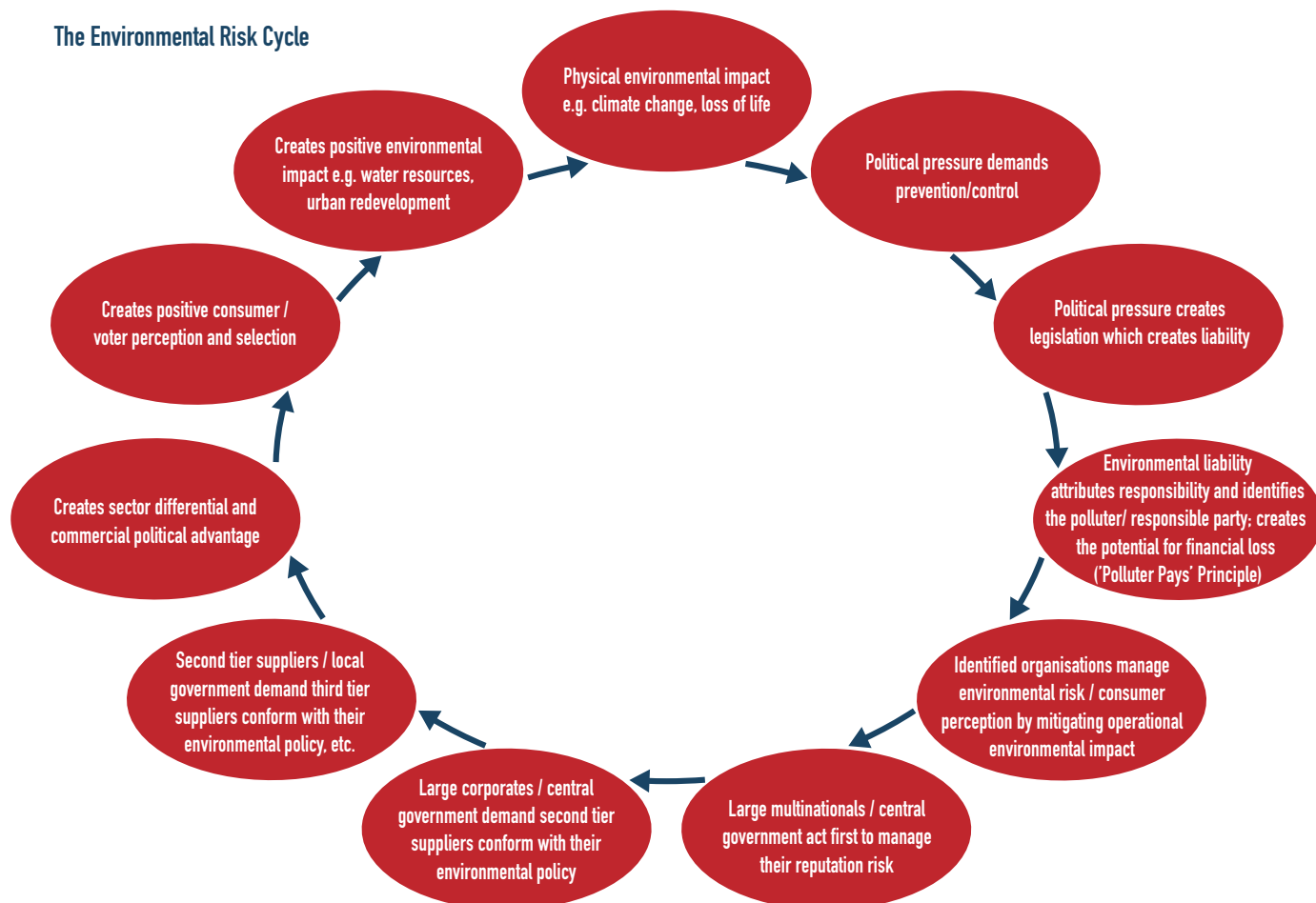
Many people (and managers in particular) perceive that the law is the main driver behind the necessity to manage the environmental impact of organisational activities. Experience has shown that this is not the case, certainly not outside of the United States of America. While environmental legislation may be an underlying driver, it is the reputation and perceived risk issues that have been responsible for the greatest change in public and private sector organisational behaviour.

My perception of what has driven environmental risk management over the last twenty years can be described as a recurring cycle (see illustration below).

Within this cycle *legislation* is a fundamental element. However it is not the enforcement of legislation that has created the motivation for operational change or environmental risk management. Rather it has allowed the identification of the responsible party/s. Once it is possible to differentiate between players, and between the 'goodees' and the 'badees', then consumer selection comes into play to preferentially select one player over another. With competition for the consumer market so hard in all other areas of private sector and public (political) life, this means that environmental risk has become a competitive and consumer 'sales' issue with a commercial / political significance which to date has significantly exceeded its financial significance to the corporate or public sector balance sheet.

This may and probably will change with time. However for the present it is the commercial and political competitive pressure, followed by 'chain of supply' commercial drivers fuelled by large corporate consumers that has provided the strongest, and most sustained, driver for environmental risk identification and liability management.

The Environmental Risk Cycle



Prioritise risks

*Lord, keep me from the fatal habit of thinking
I must say something on every subject and on
every occasion.*

17th Century Prayer

Many of the environmental risk issues collectively referred to as environmental risk, constitute environmental risk to our private and public sector organisations, some in ways that are surprising. Even with the endless resources that our organisations make available, we cannot tackle all of these at once.

It will be necessary to categorise these into manageable 'bites'. An example may be as follows:

Category 1 - Historical:

What has the company / municipality done in the past that has created an environmental risk that could materialise in a financial / political liability today / tomorrow?

Examples: Past acquisitions of companies (with associated liabilities), past divestment of companies (i.e. warranties and indemnities given, residual liability 'bounce back' under the 'polluter pays' principle.)

Category 2 - Current:

What are we doing today that creates an environmental risk today or could create an environmental risk tomorrow?

Examples: Recent European Legislation such as the European Liability Directive (ELD), the Soil Conservation Directive, etc.

Category 3 -Future:

What may happen tomorrow that will create and environmental liability that can be offset by planning today?

Examples: Carbon Emissions Quotas / Credit Trading, Fossil Fuel – Assets or Liabilities; increased overheads from recycling requirements, etc

Categorising the risks in this way we can start to prioritise their relative commercial importance. For example, Category 2 risks are directly affecting the survival and success of private and public entities now. If we do not manage these successfully then they will not survive to do anything about Categories 1 and 3. Further, anything that we do to manage the environmental risk now can reasonable be expected to lessen the risks in Category 3 going forward.

Using prediction and interpretation in decision making processes

“The present is the key to the past”

Charles Lyell

*“Is the Present the key to the Past or
the Past the key to the Present..”*

Mehmet Celâl Sengör

Environmental risk managers must be predictive and interpretative in the decision making process. This will in turn appropriately influence the methodology and choice in managing the risk.

In the preceding parts of this paper, I propounded that Environmental risk and liability is a man-made concept that is simultaneously a product of both individual and mass popular perception, political aspiration, and commercial and business drivers. Of the 'scientifically' based risk disciplines, it is arguably the most recently created and the most rapidly evolving.

If the entire environmental risk management process is focused on the identification of the environmental risks presented to an organisation today, then at best the actions will be reactive and responding to priorities of time rather than best practice or economic expediency.

Environmental risk, as a concept, has only practically existed as a commercially significant risk for a short period of time. This is an advantage as it means that we can still look back and capture past events in its development. We cannot use these as a direct prediction of the future, since the circumstances that created them no longer exist. However, I believe that we can use these past trends and patterns of development to give guidance to our decisions now that will affect our private and public sector organisations operations in the future.

The interpretation of the evolution of environmental trends will be as individual and appropriate as the person responsible for them. Since I am not blessed with any more psychic ability than any other environmental risk manager, any indications as to my thoughts on future events are as personal and subject to error as the next person's. However, to provide some examples of what I mean by the interpretative and predictive role of the environmental risk manager, I will share some examples here:

Immediate Trends

1. Increasing Legislation relating to Climate Change Offset

In my opinion, although not immediately effective, short term trends in environmental risk drivers will focus on climate change, climate / environmental impact, carbon emissions and carbon trading.

Why?

A. Political Objectives of Western European and Scandinavian Political Parties

This aspect has now achieved too high a media profile to be easily dismissed. It has been adopted by the public as an issue that immediately affects them (in their lifetime).

This is a recent change. Climate change was first 'identified' as an effect that would impact the next generation or the one after that. It is now widely accepted that we are seeing climatic effects now that are impacting on the present. *As a result, the populations of Western European and Scandinavian countries will now accept changes in order to mitigate the accepted effects.*

Previously, legislation to initiating change would have been a vote loser. This has now reversed. The lack of an environmental policy to demonstrated political commitment is perceived to be a vote loser. Peer group pressure between political adversaries is subsequently ensuring cross-party convergence on these issues (stated or otherwise).

The major political parties in most Western European countries now identify climate change control / management as a significant and positive political objective. Therefore these political entities are now publicly committed to enacting legislation in order to be publicly demonstrating their efforts.

Effect on Western European Private and Public Sector Organisations:

- Climate change related legislation will increase.
- Increase in overhead costs to meet new legislative requirements (for the private sector) or to implement the administration, monitoring and enforcement infrastructure for public sector bodies.
- Legislation will be likely to take the form of economic instruments, establishing competitive advantage to compliance with legislation and minimising costs of enforcement and policing to governmental bodies.

B. Shifting balance of power from Western, Scandinavian and United States of America economies to emerging Eastern economies.

Emerging economies in the East are now the major manufacturing centres for the world. These countries now hold increasing commercial leverage on a global scale.

The established dependency of Western economies on fossil fuel is becoming increasingly less important as a factor affecting the balance of economic power as Eastern economies are forging ahead to develop alternative power supplies to fuel their economies, almost certainly including nuclear power.

Effect on Western European Private and Public Sector Organisations:

- Increasing overhead costs attributable to the cost of energy in Western economies increases the competitive advantage of Eastern economies.
- More manufacturing sectors are / will be economically forced to migrate primary manufacturing operations to Eastern economies (for these reasons and other economic drivers).
- Western economies become more consumer and high economic value 'service sector' centric as the basis for their economic stability.

C. Carbon Emissions Quotas / Carbon Credit Trading will become a reality

Assuming one accepts the reality of climate change and its linkage with green house gas / carbon dioxide emissions to the atmosphere, then the political imperative to bring in some form of control and emission reduction is also present (See section 1a above).

The intended effect of such legislation is likely to be to bring about operational changes in manufacturing practices to more carbon 'friendly' and emission friendly operations.

Effect on Western European Private and Public Sector Organisations

- Carbon emission reduction via amended practices is likely to increase research and development costs in order to adopt new 'carbon friendly' manufacturing techniques.

- Initial and medium terms demands of manufacturing will be likely to require the purchase of carbon credits via the Clean Development Mechanism (CDM) in order to offset carbon unfriendly existing manufacturing practices in Western Europe and America. This is likely to form a net investment growth the Eastern economies (where the ability to create carbon credits via the CDM Mechanism is highest) and further increase overhead costs to Western and American manufacturers, further increasing economic competitiveness advantage of Eastern economies.
- Carbon credits / the ability to conserve and trade excess credits are likely to become 'assets' for company valuation and investment criteria going forward.

D. Increasing Legislation to meet Recycling Objectives in Western Economies.

In order to offset adopted Climate Change Objectives, as well as the demands to optimise diminishing landfill capacity due to economic pressures on land assets will lead to greater obligations on manufacturers to meet recycling demands.

This is already in effect in regard to packaging recycling obligations and packaging minimisation as well as recycling of electrical equipment. It would be reasonable to expect further legislation to increase this requirement across more of the manufacturing sector.

Effects on Western European Private and Public Sector Organisations

- Increased overheads to meet the necessary and fundamental changes in manufacturing methods, choice and use of raw materials right down to the redesign of many established product ranges.
- Potentially initially exaggerated recycling costs for goods that are already in the economy for which recycling was not budgeted for in the production and sale costs. This may be even further exaggerated by the necessity of existing manufacturers to accept the recycling costs for products by manufacturers in the same sector that are no longer in existence, either explicitly by law, or a commercial expedient in order to capture market share (e.g. replacement cost offset by disposal of the consumers existing equipment).

2. Increasing Legislation relating to Contaminated Land

My expectation is that legislation relating to contaminated land and contaminated land clean up is continuing to in-

crease and that this is likely to be the case in the short to medium term future.

From a media and political agenda profile I would expect this to play a secondary role, at least in the short term to climate change issues. We have not seen a major pollution incident affecting human communities to any great extent in Europe, Scandinavia and America. In what is effectively the heartland of the industrial revolution, the legacy issues for past industrial practices are widespread and not always obviously attributable to a responsible party, either due to multiple past ownership of land or the multiple re-use of property assets.

If the existing legislation was enforced to its maximum extent, then the immediate and obvious economic impact on European businesses in competition with external European competitors could be catastrophic with significant and immediate impacts on the European economies.

We would therefore expect legislation to continue to be created and the implied threat which this creates to generate the commercial driver for 'voluntary' clean up to occur as investors and shareholders become increasingly aware of the threat to the balance sheet of acquired liabilities from acquisitions and mergers, or the existence of residual liabilities arising from past divestments.

Why?

A. Increased pressure to 'do something'.

In the short-to-medium term, increased pressure on land for housing in an increasing population density scenario (either through endemic growth or increasing inward migration of peoples from other countries – including highly educated individuals from the Eastern economies), and or the removal from development of land assets in peril from climatic change related events (e.g. increased storm frequency and severity, inundation of floodplains, etc.)

Effect on Western European Private and Public Sector Organisations

- In the short term probably relatively little financial or commercial impact as we have seen to date. However, I would expect that there will be increasing commercial pressure to mitigate and manage the implied risk presented by the increasing legislation. This will be exerted by the demands of the financial institutions backing the deals, by buyers going forward (or even by sellers in a 'sellers market' as is the current position), and by the increased demands by financiers and investors for corporate transparency and the

more accurate reporting of so called non-financial risks to the balance sheet.

- In the medium-to-longer term, an increased cost of divestment and acquisition of companies under shareholder to pressure to increase in size / market share in order to support currently established expectations of returns on investment from financial institutions and shareholders.
- In the longer term, the greater acceptance of the mass populace to accept environmentally related changes in legislation, although initially created by climate change, will subsequently free governments to identify other environmentally related issues, including contaminated land, to enact and enable legislation to facilitate obtaining these objectives and to enforce them with less negative political impact from the electorate than would currently be the case.

Furthermore at this stage it would be expected that the Western economies would already have changed in their component make-up for a variety of reasons (including those stated here) such that the political imperative will not be so much to sustain a manufacturing economy as to not be left with the cost of cleaning up a past industrial legacy from the public purse – an unpopular vote strategy in any economy.

B. The Manufacturing Flight from West to East

We have already discussed some of the causation of the West to East migration of the manufacturing based sectors which is already is happening. At present this can be attributed to quite separate and more immediate economic drivers; lower overhead costs, cheaper and more readily available land assets, cheaper labour costs, lower transportation costs of many raw materials, etc. We are already seeing large tracts of land previously used for heavy industrial, potentially polluting processes in the chemical petrochemical and oil refining sectors already being decommissioned and vacated.

With the migration of the manufacturing sector in general from the Western Hemisphere, there are no readily waiting new industrial occupants for such assets. To leave such assets redundant not only represents an ongoing cost for the current land owner in terms of maintenance if nothing else and a stranded asset in terms of its capital value, it also represents a cumulative undefined residual liability against the balance sheet of the organisation going forward. If the legislation is enforced, how big will the cost be and, probably more importantly, what will be the reputation risk when it occurs?

From a government perspective, if the asset is no longer active and contributing to the economy, it is not only detrimental to future growth and development of the community, but also not a job or vote loser if enforced regulatory action is taken while the responsible company is still able to pay so called ‘deep pockets’ syndrome.

What is this to do with me? I am only a risk manager

If any of the above outlined trends are correct, and other trends not identified here are also active in a similar fashion, risk management of the immediate environmental risk will be effective in the short term but fail to deliver long lasting protection to the private sector company going forward.

For the public sector organisation, if any of the trends outlined are correct, then the change over time of the political ‘will’ emanating from central government, the overall objectives set for local government and the challenges that this will present in terms of costs and resources at the local government level can be expected to be significant.

The choice of external advisors

Now we see but a poor reflection as in a mirror; then we shall see face to face clearly.

1 Corinthians 13

When I began as an environmental consultant, it was possible for one person to at least understand most, if not all that was then relevant to the subject. That is no longer the case.

The popular and corporate understanding of “The Environment” then comprised primarily of trying not to pollute, planting some trees in the local park and making a donation to a local charity.

If there is a single message to take away from this article it is that environmental risk for the private and public sector organisation is no longer just about environmental audits and cleaning up dirty land.

In the beginning of environmental risk and liability we had a simplistic understanding of the issues. Certainly the issues have become more complex as we have learned more, as we see more of the effects that we are having on our environment and our physical, economic and cultural well being, and as the political, legal and economic momentum increases. It is equally as certain that this complexity will rapidly increase. For the present we are at some indeterminate point in between.

When we are considering the framing of what we mean by environmental risk and environmental risk management, we should not remain focused solely on the obvious. Of course the divestment of XYZ Ltd., or the privatisation of public utility National ABC, is of immediate importance to manage. However, the larger picture may be that the divestment of XYZ Ltd. may be part of a larger corporate strategy that, treated as a whole, can bring efficiencies to the process of managing the associated environmental risk. Similarly the privatisation strategy of public entities in order to shed liability going forward may reflect a different stance of local government carrying out these deals on the ground.

On this basis be prepared to choose your advisers appropriately.

Inevitably environmental expertise is required. However also consider what it is that we are actually managing in terms of the environmental risk to private and public sector organisations.

Financial and political impact of environmental risks and liabilities and the management of the perception of environmental risk

In terms of the direct affect of environmental risks and liabilities, ultimately we are almost certainly managing the risk of the financial and / or political impact of a liability arising, and the perception that this will convey to our consumers, investors, shareholders electorate, etc..

For virtually any organisation in any industrial sector ('dirty' or clean), private or public, it is possible to identify a multitude of potential or probable environmental risks.

If we were to physically risk manage each and every one of these risks then the effect on the profitability or continued success of our organisation would probably be catastrophic. Apart from the undesirability of this outcome for our employers and the ongoing employment of our colleagues, and ourselves, there would actually be little benefit to The 'Environment'. ...financially insolvent companies and ineffective authorities do not have any money or resources to carry out clean ups.

Some environmental risks will be most appropriately treated by physical means. It will be necessary to clean up, in which case it makes sense to use a reputable environmental consultant. However, some environmental risks may never materialise into a liability, e.g. 'cleaning up' a stabilised pollution condition for the land to be developed for another industrial land use may present a greater environmental threat than leaving it as it is? However, from a commercial perspective, this is still a potential risk that your company or

organisation would prefer not to have (or at least not have to report). If this is the case, is there a means of managing the potential environmental impact if the risk should it materialise as a liability? Is it perhaps appropriate to talk to an insurance specialist to transfer the risk via insurance, or the organisations' Captive Manager or Finance Director to provision for the potential financial impact tomorrow today?

If the risk is a widely known or suspected risk, or the company is taking actions now in order to manage operational changes to meet future expected trends in legislation, perhaps the expertise required is in media communication? It could be that actually a public relations adviser is required to manage the stakeholders' perceptions. The best and most effective of environmental risk management systems can still fail if the outcome is not effectively communicated to the stakeholder partners and their perceptions of the environmental risk managed appropriately.

Whatever the choice, or hybrid of choices, eventually decided upon, be prepared to look beyond the obvious and above all identify what the ultimate required objective has to be.

To illustrate the objective of giving some outline ideas of what I see as being some of the larger trends in Western Environmental Risk evolution, and their application to an individual private sector company, lets look at a 'typical' merger and acquisition scenario

If the most imminent threat to your organisation is a single site acquisition and the environmental risk that may accompany this transaction, you may be required to carry out a pre-acquisition environmental due diligence exercise, it may be appropriate to appoint a local environmental consultant and work with your internal and external legal team.

On the other hand a more complex acquisition, with facilities over a number of countries may require the appointment of a somewhat larger entity than a local environmental consultant. In such an example one of the larger international environmental consultancy practices may be more appropriate in order to achieve comparability between site surveys in different countries, and in order to achieve turn around times within the deal timeframe.

If we are looking at multinational locations, then the effectiveness, choice and cost of any environmental risk management solutions may well hinge on compliance with national environmental legislation. In such circumstances it is may not only be valuable to look at the legal environmental standards required with an specialist environmental lawyer, but also to identify future trends that may affect

the investment going forward and therefore the profitability of the acquisition.

If there is vendor environmental due diligence information, it may well be that an environmental consultant may not be necessary at all, or to a much lesser extent than might be envisaged – rather the transfer of the risk to the environmental insurance market for those elements not warranted under the sale and purchase agreement may be a more appropriate treatment for your organisation.

If this is part of an ongoing series of acquisitions, then potentially a group cover is appropriate whereby individual acquisitions are added to an existing coverage.

A similar risk management process is applicable in a property or company divestment situation, which may be more applicable to public sector risk managers, is the move towards privatisation of former publicly, owned entities.

Do not treat environmental risk differently than any other form of risk

*What's in a name? That which we call a rose
by any other name would smell as sweet.*

Shakespeare: Romeo and Juliet

Finally, do not treat *environmental* risk management as being 'different'. There is a tendency for all things environmental to be regarded as being a 'black art'. It is not, and the failure to grasp this subject in same way as we do health and safety or business interruption risks, etc. can significantly hinder its successful physical and financial management.

Most of us are familiar with the Risk Management Standard as propounded by the IRM, Airmic and others. What I have been discussing above is no more or less than the Stages 1, 2 and 5 of this well established standard i.e.

- Identify the Organisations Objectives
- Risk Assessment / Risk Evaluation
- Risk Treatment

I have specifically addressed these aspects on the basis that to the non-specialist this application may be particularly unfamiliar.

For the remainder of the Risk Management Standard process the management of environmental risk is no more or less complex than any other area of risk in the private and corporate sector. It is vital that it is not treated as such.

Above all it is the risk manager/leader who must manage the process. The input from a variety of external and internal advisors from a variety of disciplines will almost certainly be required. However, an environmental risk management system is unlikely to deliver its desired objectives unless the risk manager/leader become integrated within it and control it from the inside.

If the successful management of environmental risk differs from other risk areas in its treatment, it is that 'one size does not fit all' and you are the most appropriate, and the only person who can actually tailor the fit.

Having qualified as a geologist, Dr Steward has spent his working life as an environmental consultant and risk manager.

He has carried out some of the earliest site reclamation programme design and execution in the Europe and he subsequently became the first specialist environmental insurance broker when that market came into existence in Europe in the early 1990's.

He has had the privilege to work with numerous private sector companies, from SME's to large multinationals across the world, as well as local, national and international governmental bodies.

Brownfields – From Regs to Riches

By Patee L. Roper, Industry Specialist, Public Risk Management Association



One of the nice perks I get from working at the Public Risk Management Association is the fantastic view of the city of Alexandria, VA, from my office. The low rooftops of historic Old Town contrast sharply with the vertical mass of the George Washington Masonic Memorial and abundant trees provide a pleasant green backdrop. Not bad considering the view from some of the cubicles I have been relegated to in the past.

To the left of the memorial, the view includes a new development known as Carlyle. Within this district are the headquarters for the United States Patent and Trademark Office, a federal courthouse, a wildly popular branch of the Whole Foods grocery chain and a mix of town homes, condominiums and apartments. The complex is a short walk to the King Street station of the Metro subway system, where one can be whisked away to downtown Washington in twenty minutes.

Mind you, this is not a real estate advertisement. I mention Carlyle because the site where it is located did not have these amenities 20 years ago. In days past, it was a marshalling yard for the Norfolk Southern Railroad. The site had been used for a variety of industrial purposes since the Civil War and the soil contained a host of hazardous substances and materials. These included polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs) and arsenic. This part of the city did not get the tourists who were curious about the town where the first President of the United States, George Washington, led his business life.

Carlyle is an example of a brownfield that has been reclaimed and is contributing new tax revenues, providing places for people to work and live, and changing the landscape of the city. The United States Environmental Protection Agency (EPA) defines a brownfield as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous sub-

stance, pollutant, or contaminant.” These sites range from the abandoned dry cleaners on the corner to the shuttered manufacturing plant that was once a major player in the local economy.

So what does all this have to do with risk management? If seen from an enterprise risk management viewpoint, the development of a brownfield has very strong upside opportunities despite the risks involved. This is a great chance for public risk managers to provide valuable assistance to projects that could expand the revenue base, alleviate potential health and environmental hazards and provide new or expanded resources or opportunities for citizens and businesses.

“... the development of a brownfield has very strong upside opportunities despite the risks involved”

This article provides a “quick and dirty” way of helping public become familiar with the landscape and language of brownfields. It will give background information on US laws, regulations and the general climate surrounding brownfields and will show examples of insurance and risk management tools that can be used with brownfield development.

No respect

In this post-industrial age, brownfields are plentiful and have received a great deal of attention as potential resources and revenue generators. Some prime examples include:

Pittsburgh, PA:

An old steel mill site is now a mixed-use development known as South Side Works. A finishing mill on the site was replaced by restaurants, shopping, offices, housing and a sports medicine facility for the Pittsburgh Steelers and the University of Pittsburgh Panthers. The site has become a magnet for investment and Pittsburgh itself has become a center for studying brownfields. Examples of reclamation abound throughout the metropolitan area.

Emeryville, CA:

An Ikea store and other new shops stand in a city that had been decimated by the loss of its manufacturing plants and the presence of toxic wastes left behind. With a location that is close to freeways and the San Francisco-Oakland Bay Bridge, the current problem in Emeryville is not pollution, but handling the heavy traffic loads generated by the new retail. The city also was able to attract the headquarters for Pixar, creators of the movies “Toy Story” and “Finding Nemo,” to an area that was once deemed unusable.

However, these successes do not tell the whole story. Brownfields were like the Rodney Dangerfields of real estate—they got no respect whatsoever. As industries departed from an area, these properties became wastelands no one was willing to touch. The fear of known and unknown environmental liabilities was a strong disincentive for reinvestment in these sites. This fear, combined with changing labor needs and lower tax rates and utility costs in suburban areas worked to push industry further away from older parts of cities. With the rise of environmental awareness, and in response to the presence of these tainted properties and the potential harm they could cause, the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601-9675 or CERCLA) was enacted in 1980. Most of us know this legislation as “Superfund.” Money from a tax on the chemical and petroleum industries was directed to a trust fund in order to help pay for cleaning of abandoned sites or ones with uncontrolled wastes. The EPA was given the authority to respond to releases or threatened releases of hazardous substances.

“Liability for environmental contamination was based solely on property ownership with no regard to negligence or fault”

CERCLA was a very effective tool for cleaning large sites with serious contamination, but its strict joint and several liability provisions kept potential developers and investors away from smaller properties. Liability for environmental contamination was based solely on property ownership with no regard to negligence or fault.

In 1986, CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) that placed the focus of the law on human health problems posed by hazardous sites. SARA gave the EPA new enforcement tools, increased state involvement in the Superfund program and encouraged citizen participation in the cleanup process. SARA also loosened some of CERCLA’s strict liability provisions by carving out exemptions for 1) innocent landholders, 2) bona fide prospective purchaser and 3) contiguous landowners. Yet even with these new provisions, many investors and buyers stayed away since they saw the statute as one that could not address their site-specific needs.

The Small Business Liability and Revitalization Act (Brownfields Act) was enacted in 2001 and helped clarify many of the liability issues that were of concern to all parties involved with real estate transactions of smaller contaminated properties. It clarified the liability provisions of the three exemptions carved out by SARA and specified the EPA’s All Appropriate Inquiries Rule as the standard for conducting due diligence during the real estate process.

This act also provided tax incentives, grants for cleanup and other funding mechanisms that assisted the process. This enactment came at a time when the view toward brownfields was beginning to change in unanticipated ways.

New ways of seeing the same things

During the 1990s, major changes in site characterization were occurring that allowed for quicker and more accurate assessments of environmental conditions. The Triad Approach, which was developed by the EPA, is an example where stakeholders agree on the sampling strategy and “what if” decision trees are used to cut the time it takes to process information on the site. Under the traditional process, stakeholders would have had to wait for regulatory approval when changes were made and the work stoppages during that period added to costs and frustrations. In addition, remote sensing techniques became available that eliminated or minimized the need for gathering water or soil samples. Techniques such as electrical resistivity surveys, magnetic imaging and radar can now detect ground water plumes and areas of contamination without disturbing a single blade of grass.

A common approach to site characterization that has received an enormous amount of use is risk-based corrective action (RBCA, often called “Rebecca”). RBCA was developed by the American Society of Testing and Materials (ASTM) and targets resources toward areas that could potentially pose the greatest risks based on site-specific limits. RBCA tailors remediation to human health considerations and environmental safety concerns versus taking the traditional route of returning the site to a pristine condition. The degree of risk is determined through a three-tiered process and these results can help determine the method of remediation. Those modes could consist of removing the polluted materials, controlling the pathway of a pollutant, treating the source materials, or some combination thereof. The approach allows for a degree of flexibility that was not available through traditional remediation methods.

New methods of remediation have appeared as well. For example, in-situ bioremediation allows a toxic site to be cleaned without the need to excavate and haul contaminated soil or to pump tainted groundwater to a treatment facility (ex-situ). By using gas or liquid injections, chemical oxidation, or in some cases, plants (phytoremediation), the time and expense for cleaning a brownfield to within acceptable health and environmental limits is reduced considerably.

Changes in federal standards required companies to carry environmental liabilities such as brownfields on their balance sheets, thus placing additional pressures on corporate profits. In addition, public entities were looking for new ways to increase revenues and environmental movements such as “smart growth” placed an emphasis on utilizing existing infrastructure. Given various changes that were occurring almost simultaneously, development of brownfields began to look more and more like a palatable proposition to many different parties.

“When dealing with environmental risk management, it is best to remember that every deal will have its quirks and unique components – there is no such thing as a template that covers all potential situations and circumstances”

Risk management tools

When dealing with environmental risk management, it is best to remember that every deal will have its quirks and

unique components--there is no such thing as a template that covers all potential situations and circumstances. A combination of tools may be the best course to take.

As with any real estate transaction, ones involving brownfields are subject to due diligence, which requires understanding what the pre-existing conditions are and how they can impact the proposed development. The prior section of the article that described the Brownfield Act mentioned the All Appropriate Inquiries standard and its importance. ASTM E 1527-05 is the specific document to reference during this process. If necessary, this is the phase where any remedial action plans would be developed so that remediation costs could be quantified.

Regulatory protection such as voluntary cleanup programs (VCPs) is widely used in the United States. These programs are usually state-run and have provided relief for parties who clean sites on their own volition and use risk-based cleanup methods. Intended reuse of the site drives the level of cleanup and once the remediation is completed, a “no further action” letter is issued, releasing the entity from further cleanup requirements.

The Carlyle development referenced earlier is a good example. It participated in the Virginia Department of Environmental Quality’s Voluntary Remediation Plan. Roughly, 75,000 tons of tainted soil was removed from the site and disposed of off-site. Since the city of Alexandria has a public water supply, institutional land use controls were placed on the site stating that groundwater beneath the property would not be used for any purpose other than environmental monitoring or testing. Treatment of groundwater on the site was not required.

Environmental insurance offers an array of tools for risk managers. Coverage for environmental situations has changed considerably and providers are offering products that are underwritten with environmental exposures in mind and can be tailored to fit a particular site. Examples include:

- **Pollution Legal Liability (PLL)** - Basic coverage transfers the costs of the cleanup of unknown pre-existing or new pollution at or coming from a site. It also covers third-party bodily injury or property damage claims stemming from pollution at or coming from a site. Coverage is usually claims-made.
- **Cost Cap** - Basic coverage is for the cost of overruns for remediation expenses as well as those related to changes in regulatory standards or laws. The costs are in excess of the estimates listed in a remedial action plan. Poli-

cies usually contain a buffer layer of 10 to 20 percent of budget estimates.

- Owner Controlled Environmental Insurance Program (OCEIP) - These are very similar to the traditional Owner Controlled Insurance Program (OCIP) that has been in use for decades. The property owner is covered as the primary named insured and others are added as additional insured. An OCEIP protects owners from third party liability due to the operations of all contractors present on a site. In the case, the contractor's pollution liability and environmental errors and omissions liability is combined.

Other types of environmental insurance are available such as lender pollution liability and other risk transfer mechanisms include risk transfer contracts, pre-funding of exposures and grant and loan programs from the EPA and state governments. All these items will support, but not replace, due diligence and alleviate, but not eliminate all uncertainty and risk.

Silver bullets do not exist

Brownfields can still be treacherous territory to travel. Even with the aforementioned tools, the risks are plentiful. Environmental standards change. Policy exclusions can throw cold water on negotiations and entire projects. Many regulatory agencies have "reopener" authority that allows them to return to a site that they feel needs additional cleanup. In some states, memoranda of agreements between state regulators and the EPA have been signed in order to reduce this risk, but the memoranda often contain exceptions that make it harder to deal with some sites in an effective manner. There are always the usual availability issues in reference to insurance policies and who knows what the market will offer at any given time.

However, brownfields offer risk managers a window of opportunity to climb through. These properties are not going away any time soon, so let us get a better understanding of what they are about. As public risk managers, we can play a leading role in making the most out of the sites our entities are attempting to redevelop.

Paree Roper is the Industry Specialist for the Public Risk Management Association in Alexandria, Virginia USA.

"As public risk managers, we can play a leading role in making the most out of the sites our entities are attempting to redevelop"

Alarm Annual Awards 2007

By Dr. Lynn Drennan, Chief Executive, ALARM



One of the key aims of risk management associations around the world is to share knowledge and promote best practice. We do this in a number of different ways – through conferences, seminars and workshops and by commissioning and publishing research, surveys and guidance documents. But it is through the ALARM Annual Awards scheme that we are able to see examples of inspired, innovative risk management that really makes a difference in the public services arena.

ALARM's Annual Awards scheme is sponsored by Risk Management Partners, St Paul Travelers, Zurich Municipal and Capita BEST. The title of "ALARM Risk Manager of the Year" was this year awarded to Jan Collins of Swindon Borough Council for her sterling work in embedding a risk management framework as part of the Council's strategy. Jan will, as part of her prize, attend the PRIMA 2008 Conference in Anaheim CA, and undertake an exchange visit with her winning counterpart from PRIMA.

The remaining four categories of Award are organised into the Strategic, Operational, People and Asset categories. Open not only to professionals working in local government, but to a wide cross-section of public sector and public service organisations, the 2007 finalists were drawn from local authorities, social housing associations and fire and rescue services, across the UK. The subject of these entries tells us much about the issues that are concerning public risk managers today, and the focus of much of their efforts.

Entries in the "Strategic Risk" category related to the implementation of systems that enabled an integrated, risk-based approach to the delivery of corporate objectives; creative use of premises, leading to efficiency savings and the redirection of resources to front-line services; wide-scale initiatives to improve community health and well-being; and partnerships with the World Health Organisation to pioneer cutting-edge risk based thinking and models, on the theme of ageing healthily.

In the "Operational Risk" category were initiatives to improve risk and crisis management in schools; to highlight and reduce the number of attacks on fire fighters, attending

the scene of an incident; the development of risk management tools and e-learning packages; and mechanisms to deal with aggressive or abusive behaviour towards Council staff, many of whom are at the front line of delivering services in difficult circumstances.

Concerns about risks to staff, clients and the public in general, were reflected in the entries to the "People Risk" award. The finalists' entries covered initiatives such as a multi-agency approach to delivering services to persistent young offenders, which led to a reduction in youth crime; the use of technology to support the elderly in maintaining their independence and remaining in their own homes with increased safety and confidence; the implementation of free Home Fire Risk Assessments, particularly to vulnerable members of the community; and a partnership approach to improving the environment and streets, reducing crime, improving public safety and generally enhancing quality of life for people in the area.

Finally, the "Asset Risk" category focused on loss prevention and better claims handling; the development of packs for schools that could be used to change attitudes towards fire raising; the use of forensic coding to mark assets, leading to an 85% reduction in value of claims; and the introduction of technology to support corporate property risk management.

Further information

Further information on ALARM, its activities, events and publications can be found on the website www.alarm-uk.org

Disaster Risk Management in Japan

Part 2

By Satoru NISHIKAWA, Director for Disaster Prevention/Preparedness, Public Relations and International Cooperation, Cabinet Office, Government of Japan



The oldest official written record of a major earthquake (in Japan) dates back to 416 AD. The oldest written record of an earthquake-tsunami dates back to year 648 AD. Hence the Japanese history may be described as the struggle to confront and adapt to natural disasters

3. The second epoch-making turning point 1995

Early in the morning of 17 January 1995, a strong M7.3 earthquake hit the City of Kobe and its vicinity. The epicenter was shallow, approx. 12km in depth; the active fault ran directly beneath the center of Kobe. This is called the “Hanshin-Awaji Earthquake”. The collapse of buildings and subsequent fires killed 5,521. The total number of casualties, including indirect deaths tolled to 6,437. This was the worst natural disaster since the 1959 Ise-wan Typhoon. The fourth floor of Kobe city hall building was crushed, the Hyogo prefecture gov’t building was cracked. Local fire and police stations were heavily damaged, local city offices which were designated as emergency command stations also damaged and lost electricity, thus paralyzing the initial local gov’t response command for a few hours. The bottom up damage reporting system, from municipal gov’t to prefecture gov’t and then to National Gov’t, also the three layered response system, first the municipal gov’t, then the prefecture respond at the request of the mayor, then at the request of the governor the national gov’t respond, did not function, since the initial responders themselves lost base and were not able to grasp the entire damage. Later in the morning, when the daylight came, the aerial footage from NHK (the public broadcasting TV) helicopter showed serious damage, however the casualty reports from local gov’ts to Tokyo counted for less than 100, which showed the malfunctioning of the reporting system.

4. Progress based on the lessons learnt in Kobe 1995

The Hanshin-Awaji Earthquake was the first major natural disaster to hit the center of a large modern metropolis, and revealed the weaknesses of the 1961 system. Numerous lessons were learnt from this earthquake. The Japanese Gov’t thoroughly reviewed the Disaster Countermeasures Basic Act and made a major revision in 1995 mainly focusing on the immediate response system. For example, if in case of a major disaster and if the Prime Minister sees that the damage is overwhelming the capacity of the local gov’t, he can immediately mobilize the national defense force without the request from the governor. The Prime Minister is also given the power to create an on-site emergency coordination headquarters and designate the head. New decision supporting systems, damage estimation systems, emergency communication systems, using GIS and latest IT tools were developed. Whenever a strong earthquake was observed, the damage estimation system would be automatically activated to determine the scale of the human casualties and building damage to give guidance to the immediate response.

Prior to the 1995 Earthquake, many Japanese believed that, it would be the Tokai (the area between Tokyo and Nagoya) and the Tokyo Metropolitan areas which would be hit by major earthquakes in the near future. Especially the citizens of Kobe erroneously believed that they do not face the risk of earthquakes, simply because they have not experienced small earthquakes in their living memory.

New research programs for earthquake science were launched. Nationwide investigations of active faults were launched and the results were published as a map. It showed that all 47 prefectures of Japan have active faults and urged all local gov'ts to be aware of this fact and revise their local disaster management plans accordingly.

Institutional arrangements for disaster management were enhanced. A new high ranking position, Deputy Chief Cabinet Secretary for Crisis Management was created. In January 2001, on the occasion of National Gov't Reform, a new position, Minister of State for Disaster Management was created in the Cabinet Office to be in charge of inter-ministerial planning and coordination. The Minister would act on behalf of the Prime Minister who is the chair of the Central Disaster Management Council.

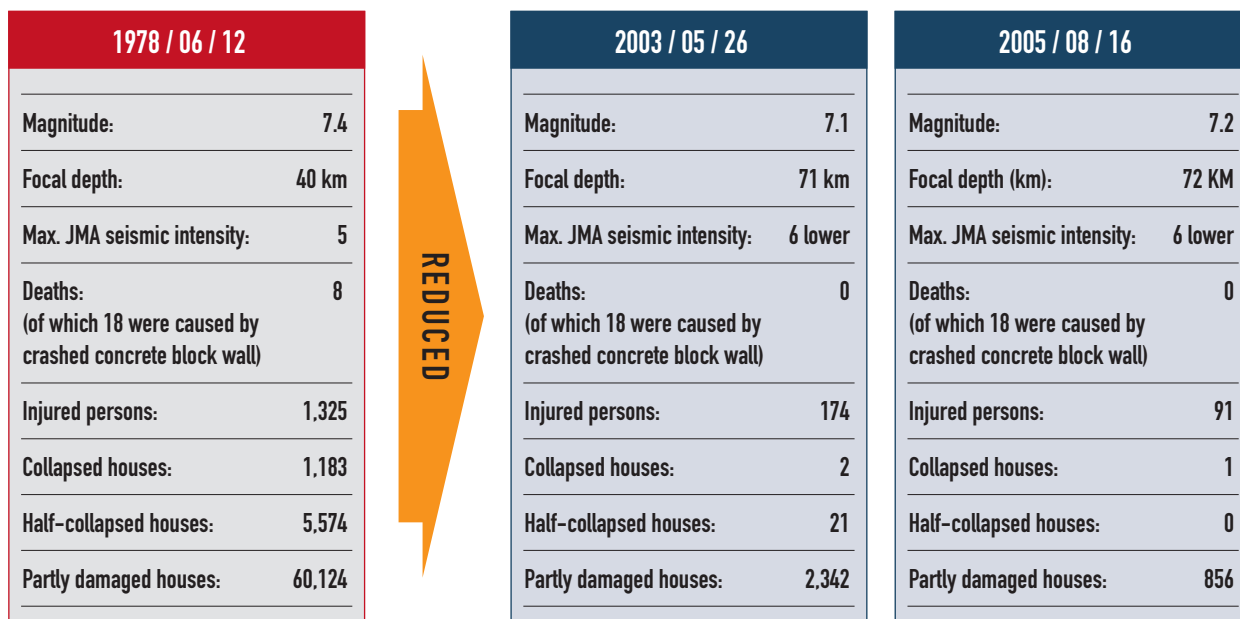
5. The improved disaster management system tested

A major volcano in Hokkaido, Mt.Usu erupted in 2000 to 2001, on-site emergency coordination headquarters was placed, the scientific prediction of lava and ash flows and the local evacuation plans were thoroughly linked at the headquarters. Massive orderly evacuation of residents was successful and resulted in no human casualties.

In May 2003 a strong M7.1 earthquake hit Miyagi in northern Japan, but there was no casualties. Disaster information was immediately shared among local and national authorities. Miyagi was hit again by M7.2 earthquake in August 2005, again with no casualties. Miyagi was previously hit by M7.4 earthquake in 1978 and 28 people were killed. These three earthquakes in Miyagi demonstrated the progress in disaster risk management in Japan. (Fig.1)

(to be continued to the next issue)

Fig. 1. Case of Miyagi-ken Earthquake



Continuity Planning for a Human Influenza Pandemic is Everybody's Business

By David Tickner, MBCI, Computrix Services Pty Ltd

The risk management environment is wide and today's risk manager has to be flexible and adaptable to meet the next challenge that is just around the corner. Australia is lucky that no cases of H5N1 or "Bird Flu" have appeared yet. There have been a significant number of cases overseas and there is evidence that it has trans-mutated to humans in one of Australia's nearest neighbours. Governments at all levels have to be aware of and prepared for the likely impact of a major pandemic outbreak on public infrastructure and services.

A widespread human influenza pandemic has the potential to impact upon the whole community.

National and international health bodies, including the World Health Organisation, are now placing all sectors of the community on the alert of a probable occurrence of such a pandemic, particularly in light of major outbreaks of "bird flu" or H5N1 from which a human-to-human mutation could occur. This mutation is the major trigger.

Advice has been given that the first wave of a pandemic influenza may last 6 to 12 weeks in affected communities, followed by (less intense) periods of infection for a number of years. The duration of the event combined with the absence of a vaccine during the first period will heighten the social, psychological and financial burdens placed on the community, businesses, individuals and households. Many of these impacts could last for years.

Planning and preparedness to mitigate the social and community impacts of a pandemic will be a complex task. Those who will be most at risk will include vulnerable groups or those who will become vulnerable as a result of the social and economic consequences stemming from the pandemic.

In a business sense there are three major impacts for which specific planning must be undertaken:

- The extended loss or unavailability of personnel,
- The extended disruption to the organisation's supply chain and it's key stakeholders,
- Impacts upon key facilities and infrastructure.

Of course, these do not stand alone, but as part of an impact framework for which organisations may already have continuity or contingency plans.

"During each wave of a pandemic, businesses should expect between 30% and 40% of their staff to be unavailable to work..."

Extended loss or unavailability of personnel

During each wave of a pandemic, businesses should expect between 30% and 40% of their staff to be unavailable to work, either as a result of contracting the illness or absenting themselves from work to care for family members or due to the fear of contracting the infection in the workplace.

Organisations will need to develop strategies and continuity plans to enable them to maintain the most critical or essential functions of their business.

Extended disruption to business supply chains or key stakeholders

All organisations rely on other goods and services suppliers as Key Stakeholders in keeping the business running. These suppliers face the same challenges as your business during an influenza pandemic. If they are working with reduced personnel and on reduced supplies of goods and services, there is no doubt that it will impact you. In turn, you will be impacting those people and organisations that rely on you.

Impacts upon key facilities and infrastructure

What would be the impact on your business and your employees, if, as a direct consequence of a pandemic, key public facilities and infrastructure were partially or wholly unavailable for extended periods? Such things as:

- The closure of schools, childcare centres and other education and care facilities,
- Restricted access to major buildings, places of work, sporting facilities, clubs and other places where the community would normally congregate,
- Restricted use of public transport and the reduction or closure of transport services.

For each and every one of these impacts businesses, communities and governments will need to establish or update continuity plans or risk mitigation strategies, as a pandemic will be of a greater magnitude and longer duration than any major disaster [natural or man made] in recorded history.

So what are we specifically planning for?

What is influenza?

Influenza ('the flu') is an infection of the nose, throat and lungs caused by the influenza virus. It is a regular occurring infection in communities worldwide and will vary year by year.

What is bird flu?

Avian influenza is an infectious disease of birds, caused by specific (type A) strains of the influenza virus. There have been a number of outbreaks in Asia recently, with some

cases of people catching the disease after close contact with sick poultry.

So far, it has not spread easily between humans, but influenza viruses evolve rapidly. There is a risk that genetic changes to the virus could enable it to spread easily from person to person, causing a pandemic.

How does influenza spread?

Influenza is very infectious. It spreads from person to person:

- Through spread of droplets from one person to another (coughing, sneezing)
- By touching things that are contaminated by respiratory secretions and then touching your mouth, eye or nose
- Through spread of particles in the air, in crowded and enclosed spaces.

Is there a vaccine for pandemic influenza?

The seasonal flu vaccine will not protect against pandemic flu. In the lead up to a pandemic, it will still be important to vaccinate high-risk groups against any seasonal strains of flu that are currently circulating.

The pneumococcal vaccine is also important for elderly people, as it can prevent secondary bacterial pneumonia, caused by the pneumococcal bacteria. Your GP can give you further information about these vaccines and there is further information on the Victorian Government website (<http://www.health.vic.gov.au/immunisation/factsheets/pneumoflu.htm>).

The Australian Government has made arrangements with two vaccine manufacturers to ensure that enough vaccine will be produced during the event of a pandemic. However, the vaccine takes at least 3-6 months to produce, and initially will be in short supply. Once enough pandemic vaccine has been produced, more Australians will be able to receive the vaccine.

What should organisations do in planning for a pandemic?

Continuity planning for a pandemic should be complementary to existing "all hazards" continuity plans. They should include the following basics:

- Identifying and prioritizing essential business activities (and the core people and skills to keep them running or alternative back-up arrangements);

- Identifying critical customer, supplier and stakeholder relationships highlighting key dependencies that could place business operations at risk;
- Identifying the infrastructure and resources required for the organisation to continue operating at the minimum acceptable level;
- Developing mitigation strategies for business/economic disruptions, including possible shortages of supplies and contingency plans for continued operation; develop and test business continuity plans that will maintain operations in response to the major impacts of a pandemic
- Ensuring relevant employees, customers and suppliers are aware of the contingency arrangements and that they work; and
- Minimising illness in workers by establishing and maintaining prevention and containment procedures:
 - applying good personal hygiene rules;
 - workplace cleaning;
 - social distancing and “cough” protocols;
 - restrictions on staff travel and access to workplaces;
 - continuing screening of staff.

Most of these are covered in detail in “Being Prepared for a Human Influenza Pandemic – A Business Continuity Guide for Australian Businesses” – Department of Industry, Tourism and Resources.

Based in Melbourne, Australia, David Tickner has over 40 years experience in both the IT industry and strategic business consulting. Over the last 10 years he has focussed specifically on business continuity planning, initially as the Y2K practice manager (Asia Pacific) for Digital Equipment/ Compaq, and for his own organisations (Platinum Resource Management and Computrix Services) since 2000.

PRIMO France Launched



EIRM recently interviewed Gerard Combe, Chairman of Primo France, Delegeue General, CESR Rhone Alpes and Philippe Auzimour, Vice President of Primo France and Managing Director at Marsh about the newly launched PRIMO France.

Why did you create Primo France?

GC: We started from a brainstorming session within UDITE (European Local Authorities General Managers association, founded by Gerard Combe). A survey made amongst a representative sample of General Managers in Europe stressed 2 main points:

- Public sector lags behind private sector in terms of risk management, especially when compared to highly regulated sectors such as the pharmaceutical industry or financial services.
- The French public sector, although in the average, is late in comparison with other European countries such as Great Britain and Denmark, not to mention the United States.

What is the mission and vision of PRIMO France?

GC: The main objectives of Primo France are aligned with Primo Europe:

- To inform - through the website www.primoeurope.com and the Newsletter
- To exchange - through the organisation of workshops, meetings and events themed around best practice in public risk management Training, as an e-learning and a face to face program are currently being launched

- Research and Development: Primo's scientific committee, consisting of experts, researchers and specialists produces deliverables, studies and reports. It is also focusing on providing Primo with strategic thinking.

PhA: Primo shall provide local authorities with diagnostic and risk management tools. Risk management is closely linked to citizen's quality of life. It is a huge part of a general manager's daily decision making. Public service has a lot to do with prevention and protection of citizens, especially since the introduction of the "principe de precaution" {principal of precaution}.

What are the methods of Primo France?

GC: We do think that the best way to improve risk management is to share best practices between local authorities on specific risks and ways to mitigate them. Primo France aims at being a platform for local authorities to exchange and obtain information to solve risk issues. Website and workshops remain the best ways to share information. Our last event on Public Private Partnership risks raised outstanding interest. During the end of May 2008, Primo France will organize (in conjunction with Primo Europe) the International Public Risk Management Conference.

Primo France is also working on a specific training for general managers and future risk managers in local authorities to improve their ability to embed risk manage-

ment in public entity operations.

Does that mean there are no risk managers in the french public sector?

GC: There are, but less than in other countries such the United Kingdom, where ALARM registers 1,700 members and the United States where PRIMA counts more than 4,000 members.

PhA: The risk management function is spread and diluted across various parts of the public organization. There are very few risk managers as such, with the ability and capability to advise elected representatives and the board of directors on the full spectrum of the risk radar.

What is a risk radar?

PhA: Public risks are usually segmented in 4 quadrants: strategic risks, operational risks, financial risks and human resources risks. The 4 quadrants are also organised in concentric circles splitting internal and external risks (see Figure 1). The whole constitutes the risk radar and is a commonly used tool to risk analyse and position specific risks of a public entity.

GC: PRIMO is organising a “Risk Initiative of the Year Award” around these four categories. This will help to compare best practices with other countries around similar initiatives.

Which risks are Primo France currently focusing on?

GC: Mainly on emerging risks and risks faced by society as a whole. Pandemics, major events, public official's liability, disaster management linked to climate change, and the project risks of public private partnerships are a few examples.

Are these risks purely French or do they have a European context?

PhA: Most of them are European or Global. Their importance depends on two factors;

- Recent impact - our latest survey of Risk shows that natural hazards, professional risks, social unrest and environmental risks are featuring highly on the public risk radar. Floods in Germany, Czech Rep and England, recent riots in France and the Netherlands, major pollution in several countries in Europe are definitely enhancing the awareness of these kinds of risk. As a consequence public entities increasingly understand that they are more exposed

which in turn raises the awareness of professional risks and liabilities.

- Legislation– some central governments have reacted to these events by introducing laws to enforce awareness and preparation of local authorities towards these risks. As an example, the civil security laws in France made service continuity and emergency plans compulsory.

How can we improve collaboration between local authorities across Europe on these subjects?

PhA: It depends on the very nature of the risk. Some risks are definitely cross boarder such as pandemics, nuclear accidents or oil spills hence the interest of collaboration between local authorities on addressing and meeting disasters.

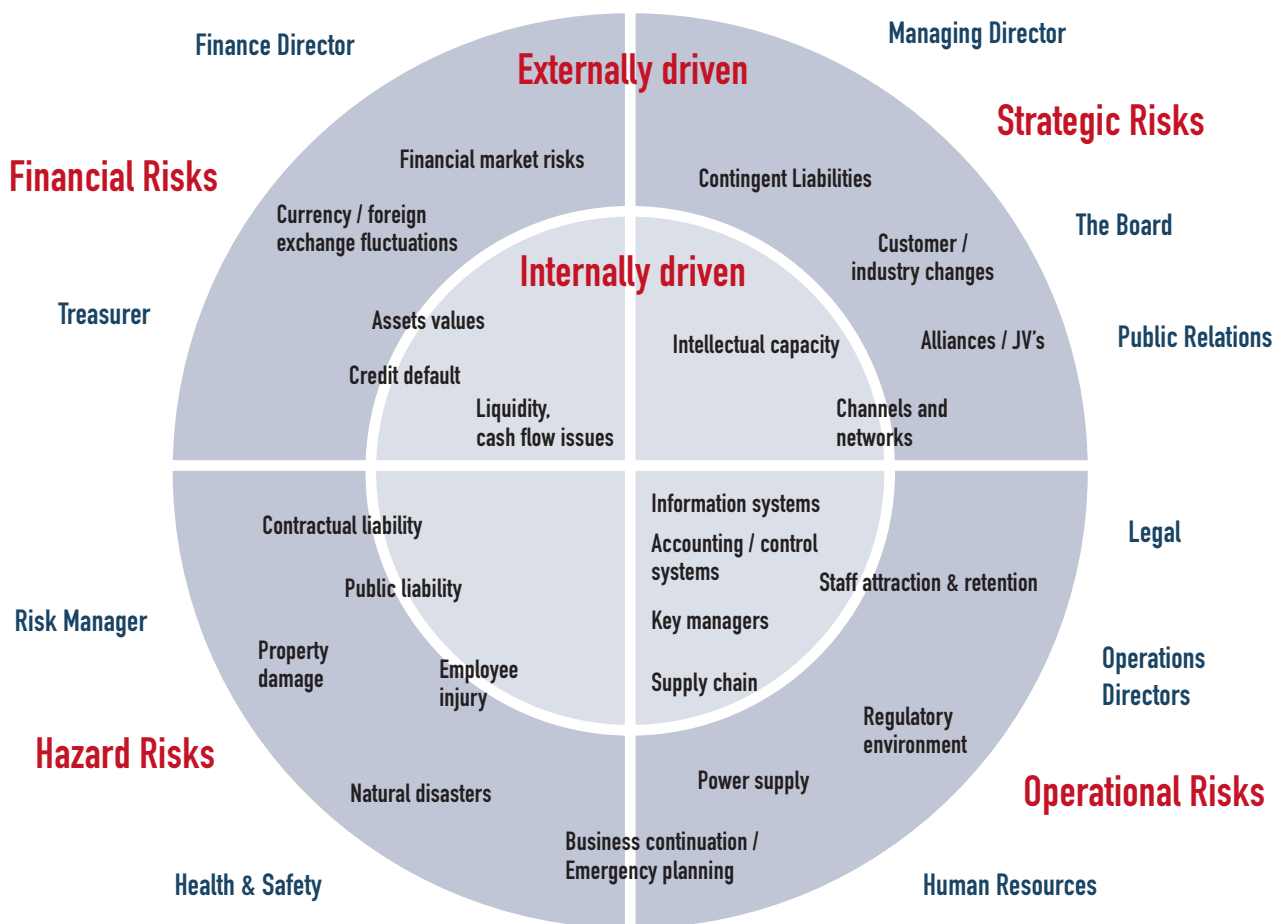
Is risk management a topic conducive to encourage collaboration between countries?

GC: Yes! Actually the EC is funding several cross border projects on risk mitigation, disaster management and risk communication in programmes such as PHARE and EuropeAid.

Do you think risk management is being politicised?

GC: Elected representatives do not just care about quality of life but more and more about risk management. This is driven by the fact that people and companies will benchmark protection and prevention between local authorities before deciding to settle in one or another. This is why PRIMO aims to promote a “new risk governance in the public sector”.

Fig. 1: The Municipalities risk radar



Risk Management for the Future

By Steve Fowler, CEO of the Institute of Risk Management



The Institute of Risk Management (IRM) is launching the world's first International Diploma in Risk Management in October. "As well as being the first international qualification in this area, the Diploma will also offer the most integrated approach to managing risk across a whole organisation, wherever that organisation is located and whether it is in the public, private or 'third' sector" says IRM chief executive Steve Fowler.

This is a fundamental change from the way the profession has operated in the past, when people have usually viewed risk management as vocational. They have tended to ask what skills they need to do a particular job in a particular organisation, rather than how to acquire the skills to demonstrate a broad knowledge of the art and science of risk management.

The new Diploma – called the IRM International Diploma in Risk Management – is a post-graduate level distance learning qualification that replaces the IRM Diploma in Risk Management. It is designed to meet the needs of a wide range of professionals, including risk managers and those working in risk-related disciplines, and anyone wishing to demonstrate their professional standing and enhance their career prospects.

A collaborative process

The IRM spent the first 18 months of its work to recast the Diploma gaining input from nearly 70 academics and practitioners around the world. It asked this 'faculty' of risk specialists what skills and competencies risk professionals would need in 10 years' time, and developed the new syllabus in response to their comments.

Professor Peter Young, chairman of the IRM's Diploma faculty, explain it this way: "Everyone is aware that the field of

risk management has changed in the last decade a lot more than many other fields. The scope of what risk professionals need to know has expanded tremendously. Rather than updating the Diploma in its current form, we wanted to step back and think about what the programme is supposed to be doing."

As a result of this research, the IRM designed a completely new Diploma that would cater to the current needs of risk professionals, as well as anticipating their future challenges. Of the five core modules, the first three aim to give an academic and practical grounding in risk expertise, while the next two modules are geared towards how to apply this expertise within an organisation. These are followed by two specialist modules and a practical assignment.

Practical application is critical to the design of the new Diploma programme. In the workplace, companies require people who have the right professional training and background, and people who are able to apply their knowledge. The Diploma therefore sits between an academic approach to risk and the application of those theories.

The course involves flexible distance learning, allowing students to work at their own pace, and most students will take four years to complete it. With the launch of the new Diploma, we are creating an online university environment, where students can find and download the published material they

need, question examiners, network with fellow students and get advice on their studies. Examinations can also be taken in locations through Europe and worldwide.

An international perspective

Giving the new Diploma an international outlook has been key. We believe that anyone working in risk management needs to be able to give senior management a truly international perspective on the exposures their organisations have.

The Diploma qualification will also be the first risk management qualification that is truly holistic and integrated. This will play an important role in ensuring that the risk profession comes to be properly recognised as playing a broad managerial role in any organisation.

It will also be important for individuals because a more narrow vocational training can limit the range of jobs open to them and the salaries they can achieve. A broad professional background and wider knowledge is likely to mean acknowledgement as someone who can contribute to the organisation overall, rather than purely as a technician.

Sector independence

As well as giving risk managers an international perspective, the course also aims to provide knowledge and skills that apply equally to risk management in public, private and 'third' sector organisations. The public sector takes training and professional education very seriously, and a significant proportion of the EIRM membership (and several of the Institute's Directors) come from central and local government bodies and the emergency and health services. Building on a common core of risk management knowledge, the Diploma will offer specialist papers in public sector and health sector risk management to allow students to tailor the course to their own work environment.

Find out more

Students can enrol for the Diploma from late September. To find out more or to enrol, please visit www.theirm.org.

What is the course structure?

LEVEL 1: Core Modules	LEVEL 2: Specialisms (two modules must be taken)	LEVEL 3: Practical Assignment
<ul style="list-style-type: none"> • Principles of risk - covering the background to risk management • Risk and organisations - examples of how risk affects different organisations • Risk decisions - techniques for risk and decision analysis • Risk leadership - risk programme development, including governance and ethics • Risk solutions - practical solutions to risk issues, including risk control, risk financing, business continuity and project risk management 	<ul style="list-style-type: none"> • Technical modules • Sector modules • Project risk • Public sector • Business continuity and crisis • Retail, logistics and supply chain management • Governance • Construction • Risk financing • Manufacturing • Information risk • Health • Physical risk control • Sports and entertainment • Environmental risk • Legal risk • Occupational safety and health • Financial services • International business 	<p>Level 3 will enable students to display the knowledge and skills they have gained through studying levels 1 and 2, as well as demonstrating their ability for critical appraisal.</p>

Understanding Disaster Outcomes

By Claire Reiss, Deputy Executive Director and General Counsel of PERI



Two years after Hurricane Katrina, researchers and policymakers in the U.S. continue to analyze what went wrong and how can we prevent a recurrence of this devastating event. Much of the post-Katrina analysis has focused on the performance and respective responsibilities of the federal, state, and local governments. As we examine these roles and responsibilities, it is important to understand the origin of the laws and policies that govern emergency management in the U.S. and the historical context from which they emerged. In other words, how did we get here?

Policies and practices for dealing with emergencies generally evolve and change in the wake of major disasters. The special characteristics of certain disasters -- in terms of their magnitude, hazard or threat, visibility or symbolic value, location, impact or surprise factor -- are likely to stimulate a review and evaluation of current policies and procedures. We call these *major focusing events* because they typically result in significant changes in policies, laws, and organizational structures.

Understanding the relationship between past disaster events and their outcomes is a critical information piece in the evaluation of current disaster policies. Emergency management has evolved in the U.S. over the past century and especially in the later half of the 20th century. PERI has sponsored multiple research projects that aim to provide this much-needed historical perspective.

“Understanding the relationship between past disaster events and their outcomes is a critical information piece in the evaluation of current disaster policies”

The Time Line series

With grant funding from PERI, Claire B. Rubin & Associates, an Arlington, Virginia-based disaster research and consulting firm, has conducted several research projects that provide a historical context for disaster policies, laws, and organizational structures. This research has resulted in the creation of an innovative series of time line charts, which offer a multi-decade history of disasters and their outcomes in colorful, computer-generated graphics, as well as some related explanatory publications that provide greater detail on major focusing events and their outcomes.

The Time Line series provides graphic overviews of complex historic disaster events and outcomes, focusing on cause and effect relationships. The *Disaster Time Line*, was the first in the series. Originally created by Claire Rubin in 1999 as a teaching aid for emergency management courses she taught at George Washington University, Institute for Crisis, Disaster, and Risk Management, the *Disaster Time Line* has been updated several times and now covers the period from 1978-2006.

The *Disaster Time Line* examines nearly three decades of focusing disaster events including Love Canal, Three Mile Island, the Exxon Valdez oil spill, Hurricane Andrew, the Northridge Earthquake, and the September 11th attacks and the outcomes from these events. The chart includes

information on major reports and documents, statutes, executive directives, preparedness plans and exercises, and federal actions including strategies and organizational changes.

A *Terrorism Time Line* chart was created shortly after 9/11 to connect past terrorism events and their policy outcomes, using the same conceptual framework that had been developed for the *Disaster Time Line*. Because of the level of detail depicted in the *Terrorism Time Line*, a narrative report was also created as a companion to the chart. The current version of the report, *Major Terrorism Events and Their U.S. Outcomes 1988-2005* is available in hard copy and on CD in the PERI Bookstore. The report explains how events were selected as focusing events and provides a chronology and links to various reports and documents developed as outcomes from the events described.

A third time line, *100 Years of Seismic Safety in California, 1906-2006*, was commissioned by the California Seismic Safety Commission and funded by PERI for an April 2006 conference in San Francisco commemorating the 100 year anniversary of the 1906 San Francisco Earthquake and Fire.

In June 2007, PERI published a new book on the history of emergency management in the United States. The book, *Emergency Management: The American Experience, 1900-2005* covers more than a century of catastrophic events including earthquakes, hurricanes, floods, droughts, a pandemic, an explosion, and terrorist attacks. Funded by

PERI, the book was edited by Claire B. Rubin and each chapter was written by an expert in the field. It was designed for use as a textbook for college courses and a resource for policymakers, researchers, and emergency managers. Each chapter examines a time period that was pivotal in the evolution of emergency management functions and systems in the United States. *Emergency Management: The American Experience, 1900-2005* focuses on policy and administrative changes that have been implemented over the past century and provides historical context for the changes. The final chapter provides a highly original analysis of emergency management in the larger context of public administration.

A *Century Time Line* was recently created featuring a graphic display of the events and outcomes discussed in *Emergency Management: The American Experience, 1900-2005*. The *Century Time Line* shows major focusing disaster events and their outcomes for the past 105 years. It is an excellent companion to the book and a great resource for instructors.

PERI Presidential Disaster Declaration website

The PERI Presidential Disaster Declaration website, created by the University of Delaware with funding from PERI, is a free online resource that provides information about Presidential Disaster Declarations since the early 1980s.

The site allows users to search and access information about Presidential Declarations of major disasters and



emergencies in any state, county or territory within the United States. Searches can be refined to focus on specific time periods or types of disaster declarations. Features also include the ability to examine disaster requests that were turned down, a utility for users to create their own summary tables, links to summary data, and links to useful sites for disaster information and emergency management.

In addition to serving as a tool for researchers, the PERI Presidential Disaster Declaration Website, is also intended to help communities better understand their exposure to various types of natural and manmade disasters.

The data compiled and used on the site comes from FEMA, though much of the information made available is not included on FEMA web sites. Visit the Presidential Disaster Declaration website at www.peripresdecusa.org.

For more information

For more information on the resources mentioned in this article, please visit PERI's Website at www.riskinstitute.org. The Website features an online Publications, Tools, and Resources Library, which offers additional resources on emergency management and hazard mitigation.

The Disaster Time Line, *Terrorism Time Line* and *The Century Time Line* can be viewed online at www.disaster-timeline.com. Hard copies of the poster-size time line charts can be ordered from this site as well.

Emergency Management: The American Experience, 1900-2005 (along with *the Century Time Line*) and *Major Terrorism Events and Their U.S. Outcomes 1988-2005* are available in the PERI Bookstore at www.riskinstitute.org.

Calendar

14 - 15 November 2007, Stockholm, Sweden
OffSÄK/PRIMO Sweden Conference 2007

25 – 27 November 2007, Australia
RMIA 2007 National Conference

9 – 12 December 2007, San Antonio, Texas, US
Society For Risk Analysis Annual Meeting 2007
Risk 007: Agents of Analysis

17 – 19 March 2008, Phoenix, Arizona, US
AGRiP Spring Conference

27 April - 1 May 2008, San Diego, US
RIMS Annual Conference

Spring 2008, Paris, France
2008 PRIMO Europe Conference

1 – 4 June 2008, Anaheim, CA, US
PRIMA 2008 Annual Conference

8 – 11 June 2008, Hilton Guadalajara, Mexico
2nd World Congress on Risk

29 June - 1 July 2008, Birmingham, UK
ALARM's 16th Annual Conference

17 – 19 September 2008, South Lake Tahoe, Nevada
AGRiP / CAJPA Joint Conference

19 – 24 September 2008, Richmond, Virginia, US
2008 ICMA Annual Conference

27 – 29 October 2008, New Orleans, Louisiana, US
AGRiP Governance & Leadership Conference

Do you know someone who needs an introduction to risk management?

Let them know about the EIRM's online course in risk management.

For everyone with a professional interest in risk management, the EIRM Certificate in Risk Management (CRM) represents an excellent opportunity to learn more about modern risk management practices. In addition to introducing fundamental theory and principles, the course provides students with an understanding of the general risk management issues facing organizations today, both in the public and private sectors.

Since the course follows the principles of Enterprise Risk Management (ERM), students learn about the integrated management of risks ranging from fires and law suits, to investment, underwriting and price volatility, to political and social instability, to psychological perceptions and cultural values – but all presented at a basic and introductory level.

When you enroll in the online course, you also get access to EIRM's web library, which contains extensive knowledge on risk management gathered from all over the world.

For more information, go to <http://www.eirm.net/crm>

Book Shelf

Global Risk Governance: Concept and Practice Using the IRGC Framework

by O. Renn, K. Walker

The establishment of the international risk governance council (IRGC) was the direct result of widespread concern within the public sector, the corporate world, academia, and society at large that the complexity and interdependence of health, environmental, and technological risks facing the world was making the development and implementation of adequate risk governance strategies ever more difficult. IRGC set out to conduct a thorough examination of the fundamental principles and structures that guide the way emerging risks and issues are identified, assessed, managed, and communicated. From this process, a framework for risk governance was developed and proposed, which forms part I of this volume. This IRGC framework was then subjected to rigorous peer review and comments from other experts and the public at large were invited; these comments make up part II of the volume. The framework was also tested by applying it in a series of diverse, international case studies on such diverse topics as genetically modified crops, acrylamide in food in Germany, construction of the Nagara River Estuary Barrage in Japan, energy security in the Baltic, and nanotechnology, among others.

Regulation and Public Interests: The Possibility of Good Regulatory Government

by Steven P. Croley

Not since the 1960s have U.S. politicians, Republican or Democrat, campaigned on platforms defending big government, much less the use of regulation to help solve social ills. And since the late 1970s, “deregulation” has become perhaps the most ubiquitous political catchword of all. This book takes on the critics of government regulation. Providing the first major alternative to conventional arguments grounded in public choice theory, it demonstrates that regulatory government can, and on important occasions does, advance general interests.

Unlike previous accounts, *Regulation and Public Interests* takes agencies’ decision-making rules rather than legislative incentives as a central determinant of regulatory outcomes. Drawing from both political science and law, Ste-

ven Croley argues that such rules, together with agencies’ larger decision-making environments, enhance agency autonomy. Agency personnel inclined to undertake regulatory initiatives that generate large but diffuse benefits (while imposing smaller but more concentrated costs) can use decision-making rules to develop socially beneficial regulations even over the objections of Congress and influential interest groups. This book thus provides a qualified defense of regulatory government. Its illustrative case studies include the development of tobacco rulemaking by the Food and Drug Administration, ozone and particulate matter rules by the Environmental Protection Agency, the Forest Service’s “roadless” policy for national forests, and regulatory initiatives by the Securities and Exchange Commission and the Federal Trade Commission.

Flood Hazards and Health: Responding to Present and Future Risks

by Roger Few, Franziska Matthies

With the tragedy of New Orleans still the focus of the world’s media, this highly topical book combines rigorous analysis of the human health impacts of flooding with an appraisal of how individuals and society respond to those risks. The first detailed discussion of the global health implications of flooding and future flood risk, the book sets these findings in light of potential future increases in flood hazard as a result of climate change. The volume brings together findings from epidemiological, environmental, social, and institutional studies, with analysis rooted in an approach that emphasizes the developmental as well as environmental causes of flood risk and the socially differentiated nature of vulnerability and coping capacity.

The first part of the book sets out the scope of the issues and provides a detailed discussion of the global health impacts of floods and how humans respond to the health risks posed. The second part presents new research evidence on specific health aspects of floods covering mental health, water and sanitation, local level responses, and the responses of health systems—drawing on case study material from North America, Europe, Asia, and Africa. The conclusion synthesizes insights from the previous chapters.

Web Library

Economic crime: people, culture and controls

The survey, entitled “Economic Crime: People, Culture and Controls,” is based on months of interviews conducted with more than 5,400 companies in 40 countries. It is the largest, most comprehensive international survey of economic crime worldwide.

Highlights:

Despite the attention of regulators and companies’ investment in controls, fraud remains one of the most problematic issues for companies around the world.

The actual level of economic crime and associated financial and non-financial losses has not decreased.

Nearly one of two companies fell victim to economic crime in the last two years.

The report finds that economic crime is intractable because of the many kinds of fraud and the broad range of employees, including senior executives, who commit them.

It concludes that companies cannot rely on fraud controls alone to detect and deter economic crime. Companies need to build loyalty to the organisation, give employees the confidence to do the right thing, and put in place clear sanctions for those who commit fraud, regardless of their position in the company.

<http://www.eirm.net/oak.jsp?id=25532>

Strong and prosperous communities

The aim of this White Paper is to give local people and local communities more influence and power to improve their lives. It is about creating strong, prosperous communities and delivering better public services through a rebalancing of the relationship between central government, local government and local people.

It is now time to show our confidence in local government, local communities and other local public service providers by giving them more freedom and powers to bring about the changes they want to see.

People no longer accept the ‘one size fits all’ service models of old. They want choice over the services they receive, influence over those who provide them, and higher service standards. We want this to be the case everywhere – for people to be given more control over their lives; consulted and involved in running services; informed about the quality of services in their area; and enabled to call local agencies to account if services fail to meet their needs.

Local authorities will involve and consult service users more fully and provide better information about standards in their local area. People will be able to turn to their local councillor to demand an answer to their questions through a new Community Call for Action. And there will be measures to promote increased community ownership and management of local facilities and assets.

We will encourage councils to develop neighbourhood charters setting out local standards and priorities, and to take opportunities to manage services at the level of the neighbourhood, working more closely with neighbourhood policing teams, and giving councillors small budgets to tackle local issues. We will simplify the process for setting up tenant management organisations. The process for creating parishes will be devolved to councils, and communities in London will be given the same right to establish parishes as exists elsewhere, subject to consideration of community cohesion. In addition, the power of well-being will be extended to Quality Parish Councils.

And we will back this up with a stronger legal framework to require local authorities and other best value authorities to secure the participation of local citizens and communities.

<http://www.eirm.net/oak.jsp?id=25393>

The evolution of regulation

The Local Government White Paper and the subsequent Local Government and Public Involvement in Health Bill (the Bill) set out a new performance framework for local services. The White Paper signalled a new stage in reforming local services with a new performance framework including Comprehensive Area Assessment (CAA) at its heart.

CAA will focus on place rather than the individual bodies responsible for local services. It will look across local government, housing, health, education and community safety. The new Comprehensive Area Assessment (CAA) framework will be in place from April 2009, covering all local public services.

This document addresses the initial thinking on how CAA might be developed in partnership with other regulators, including some of the key principles and timing issues.

CAA represents a fundamentally different approach to assessment that is area based, risk focused and more forward looking than current assessment activity. The new framework will need to take account of how services are delivered across areas and focus clearly on outcomes.

<http://www.eirm.net/oak.jsp?id=25388>

Communicating With the Public Using ATIS During Disasters - A Guide for Practitioners

Advanced Traveler Information Systems, ATIS, can play an important role in communicating essential information to the public during disasters. Variable message signs, 511 telephone systems, highway advisory radio, and websites are some of the dissemination devices of systems that collect, process, and disseminate information about travel conditions to the public for day-to-day transportation operations, and these same systems need to be effectively used during disaster situations. This document provides advice on use of ATIS during disasters and is intended not only for state and local transportation agencies but for their partners in public safety and emergency management agencies. It offers practical guidance to managers of transportation management centers and emergency operations centers and to public information officers who may be called on to staff joint information centers during disasters.

The document discusses what we know about human behavior in disaster situations based on findings from several decades of research. That perspective can help in maximizing the effectiveness of traveler information communications. The current use of traveler information in managing normal incidents and planned special events is examined as a starting point for gauging the processes and technolo-

gies that are in place today. Five case studies of actual disasters in Georgia, California, Nevada, Utah, and Washington State show the role that traveler information has played in current practice and provide lessons for others. A concept of operations is presented that characterizes the flow of information among the people, organizations, and technologies comprising traveler information dissemination during disasters.

<http://www.eirm.net/oak.jsp?id=25543>

Managing the Risk of Fraud: the ALARM Standard for Risk Advisors

The impact of fraud on a public sector organisation can have consequences that are serious and often far reaching. Fraud can directly affect the ability of the public sector to serve the most vulnerable in society. Financial and reputational loss are the obvious key risk areas but instances of fraud can also bring a range of other serious consequences including breakdown of trust, political fall-out, impact on morale and the risk of potential litigation.

<http://www.eirm.net/oak.jsp?id=25634>

Risk Management: Making a Difference

The growth in risk management generally, and public sector risk management, in particular, has been well documented in recent years. Whilst private sector organisations are subject to risk-related legislation and regulation, there is arguably a greater burden of scrutiny on the public sector. It is now widely recognised that risk management can play a vital role in ensuring improvement in such areas as service delivery, value for money, equitable relationships with various partners and co-ordinating activities within the public sector organisation itself.

<http://www.eirm.net/oak.jsp?id=25628>

What is the EIRM?

The EIRM is a resource centre and knowledge network that gathers, develops, and disseminates the most current and forward-thinking information on the widest range of topics within public and private sector risk management.

The EIRM strives to assure that members will gain a deeper and broader understanding of risk management, which in turn will strengthen and support both strategic decision-making and day-to-day actions and activities.

What services does the EIRM offer?

As a member of the EIRM, you will have access to the following services:

- Information Management through the EIRM Web Library
- Risk Communications through various newsletters and the global online magazine Public Risk Forum (PRF)
- Educational Programming, including seminars, workshops, and the Online Certificate in Risk Management
- Community Building through initiatives like PRIMO (Public Risk Management Organisation)

Who are the members of the EIRM?

Professionals with an interest in Risk Management such as Chief Executives, Risk Managers, Communications Directors, HR Managers, Safety and Emergency specialists, and academics.

What does it cost to join the EIRM Network?

- The annual fee for a personal membership is 500 Euro
- The annual fee for a joint membership of up to 10 persons is 2,500 Euro

For further information on membership, please contact Malene Mouritze Marfelt at mmma@eirm.net Jeanne Snefrup Jensen at jesj@eirm.net or call: +45 7025 2545



