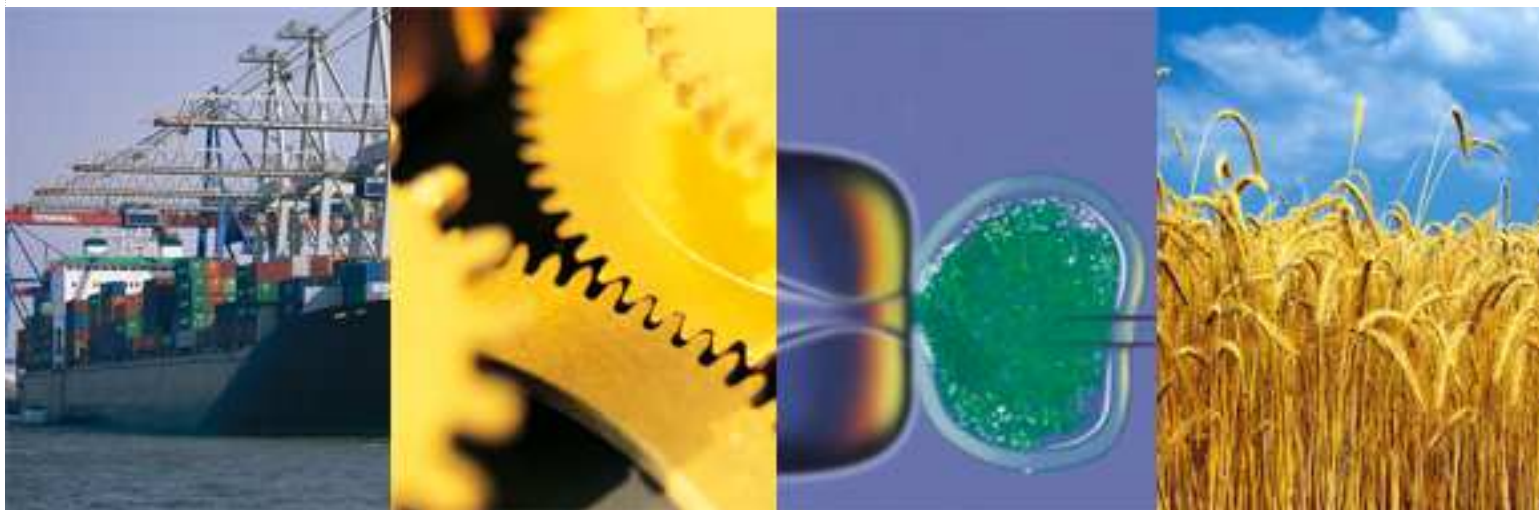


# International Standards – A vital tool to assess and manage risk in daily life and in business



UNECE - International Conference on Risk Assessment and Management

Rob Steele  
ISO Secretary-General

Geneva, Switzerland  
24 November 2009



# Outline

- Standards in our daily lives
- Standards, business and risk
- ISO Standards in business management and the management of risk
- Risk management - Principles and guidelines of ISO 31000:2009
- For example



# Standards – helping with solutions to global Risks





# Standards – Helping to manage Risks in Daily Life

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## One-stop-shop for a smooth ride

Hundreds of ISO standards routinely contribute to reducing injury and death on the world's roads. Below are just a few examples.

### Intelligent transport systems

Intersection support (ISO/TS 19184\*), Cruise control (ISO 15622, ISO 22179)  
Collision / traffic warnings (ISO 15623, ISO/TS 15624)  
Manoeuvring aids (ISO 17388, ISO 22840\*), Lane change aids (ISO 17387)  
Low speed following (ISO 22178)  
Priority systems for emergency vehicles (ISO 22951)  
Safety and emergency calls / notifications (ISO 24978, ISO/TR 25106\*, ISO/TR 26682\*)

### Injury prevention

Vehicle impact (ISO 6487), Occupant restraint performance (ISO 6546)  
Injury risk assessment (ISO/TR 7861), Traffic accident analysis (ISO 12353\*)  
Neck injury criteria (ISO/TR 13330\*)

### Heavy commercial vehicles

Brakes (ISO 20918, ISO 21069)  
Obstacle detection (reversing) (ISO/TR 12155)

### Driver risks

Visual demand (ISO 16673)  
Suitability of information and control systems (ISO 17297)

### Child restraint

ISOFIX (ISO 13216\*\*)  
Reducing misuse risk (ISO 13215\*\*)  
Performance evaluation (ISO/ PAS 13398\*)  
Child seat detection system (ISO/TS 22239\*\*)

### Fuel safety (ISO 15501-1)

### Tyres and rims

Capabilities (ISO 10191)  
Wet grip (ISO 23671)  
Pressure monitoring (ISO 21750)

**Pyrotechnic devices** (e.g. for releasing airbags, pretension of seatbelts)  
Performance (ISO 18072\*\*)  
End of life activation (ISO 26021)  
Functional safety (ISO 26262\*)

Airbag testing (ISO 12097)

Seat belt anchorage (ISO/TR 1417)

**Lights and signalling**  
(ISO 303)

**Brakes**  
Quality assurance (ISO 15484)  
Tests (ISO 6587)

Protective glazing (ISO 3697, ISO 15082)

### Bicycles

Safety requirements (ISO 4210, ISO 8098)  
Tyres (ISO 5775\*\*)

### Motorcycles

Rider crash protection (ISO 13232\*\*)  
Brakes (ISO 8710)  
Lights (ISO 11460)

### Pedestrian protection

Head crash tests (ISO 14513, ISO 16850)  
Bi-fidelity of leg crash tests (ISO/TR 15766)

### Glossary

TS - Technical Specification

TR - Technical Report

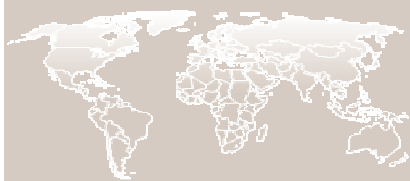
PAS - Publicly Available Specification

\* under development  
\*\* multi-part standard

# Business and risk management ... Standards support and enhance business ... Everywhere!

Access to global procurement markets

- > **Lower transaction cost**
- > **Consistent quality**
- > **Transparency**
- > **Economies of scale**



Facilitates inter-action with public stakeholders, regarding compliance (e.g., safety, health, environment)

Easier cooperation with other companies on common basis

**Other supporting functions**  
**Research and Development**  
**Procurement**



**Value Chain**

Access to global customers (B2B, B2C and B2B2C)

- > **Simplified service**
- > **Broader markets**
- > **Broader customer base**
- > **Lower pressure on price**
- > **Lower transaction costs**



The diagram features three main categories of pressures and opportunities on business, each represented by a colored arc and a cluster of circles:

- Economic (Blue Arc):** Includes circles for Trade facilitation, E-business, Emerging economies, Good business practices, and Dissemination of new technologies.
- Environmental (Green Arc):** Includes circles for Environmental management, Life cycle analysis and "green" products, Water, soil and air quality, and Waste management.
- Societal equity (Orange Arc):** Includes circles for Worker protection, Health services, Security, Fair trading, and Ethics.

Three overlapping circles connect these categories, with the word "Economic" partially visible in the center.

**Pressures (opportunities!) on business - There are many things a Manager in a business must consider.**

**What and where are the risks / opportunities?**



## What is “risk”?

- Organizations of all types and sizes face internal and external factors and influences that make it **uncertain whether and when they will achieve their objectives**
- The effect this uncertainty has on an organization's objectives is “**risk**”
- All activities involve risk



# Is all risk equal? Should we treat different risks differently?

Likelihood ↑	Almost certain	Medium	High	High	Extreme	Extreme
	Possible	Medium	Medium	High	High	Extreme
	Unlikely	Low	Medium	Medium	High	Extreme
	Rare	Low	Low	Medium	Medium	High
	Almost incredible	Negligible	Low	Low	Medium	High
		Insignificant	Minor	Moderate	Major	Catastrophic
		Consequences →				



# Risk management

- Organizations manage risk by **identifying** it, **analysing** it and then **evaluating** whether the risk should be modified by risk treatment in order to satisfy their risk criteria.
- Throughout this process, they communicate and consult with stakeholders and monitor and review the risk and the controls that are modifying the risk in order to ensure that no further risk treatment is required.



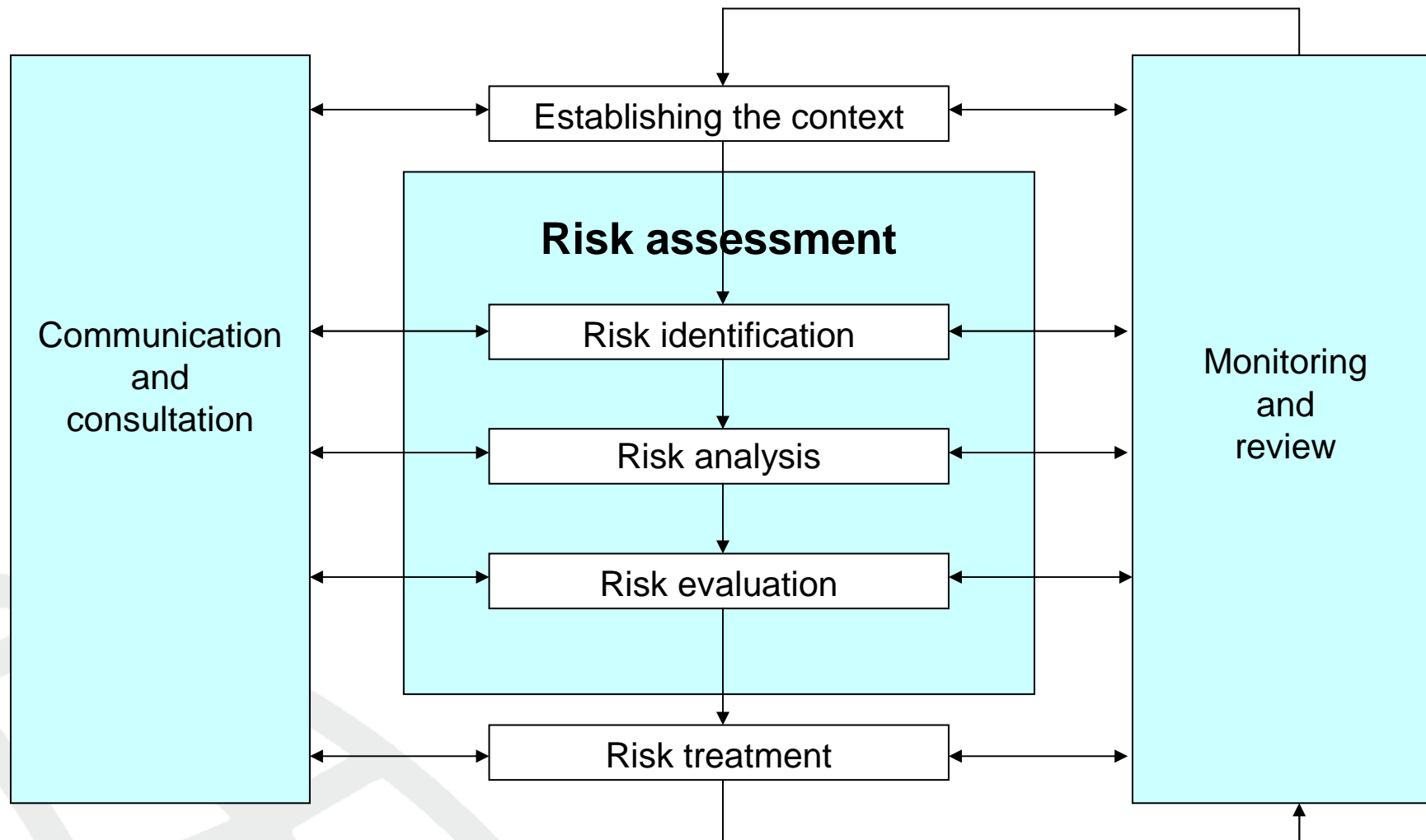
# Management System Standard (ISO 9001:2008) and Risk Management Standard (ISO 31000:2009)

The design and implementation of an organization's quality management system is influenced by :

- its organizational environment, changes in that environment, and the **risks** associated with that environment
- its varying needs
- its particular objectives
- the products it provides
- the processes it employs
- its size and organizational structure



# Risk management process



# ISO 31000:2009 - Risk management - Principles and guidelines - Key Features

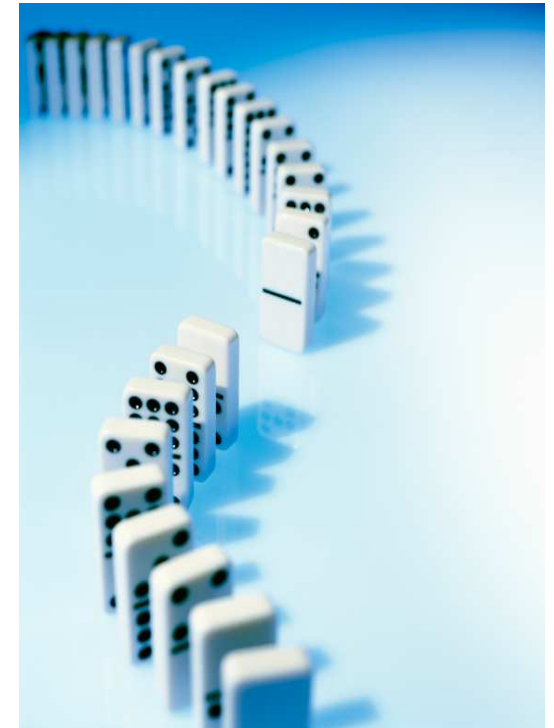
- Published 15 November 2009 with ISO/IEC Guide 73: Risk management - Vocabulary
- Applicable to part or an entire organization, to any public or private or community enterprise, association, group or individuals
- Applicable to any type of risk
- Develop, implement and continuously improve a framework to integrate the process for managing risk into the organization's overall governance, strategy and planning, management, reporting processes, policies, values and culture
- Provides principles and guidelines for managing any form of risk in a systematic, transparent and credible manner
- Describes systematic and logical process in detail



# ISO 31000:2009 – Principles

## Risk management

- creates and protects value
- is an integral part of all organizational processes
- is part of decision making
- explicitly addresses uncertainty
- is systematic, structured and timely
- is based on the best available information
- is tailored
- takes human and cultural factors into account
- is transparent and inclusive
- is dynamic, interactive and responsive to change
- facilitates continual improvement of the organization



## ISO 31000:2009 – Who can benefit?

- Those responsible for developing risk management policy within their organization
- Those accountable for ensuring that risk is effectively managed within the organization as a whole or within a specific area, project or activity
- Those who need to evaluate an organization's effectiveness in managing risk
- Developers of standards, guides, procedures and codes of practice that, in whole or in part, set out how risk is to be managed within the specific context of these documents



## An example where risk management might have helped



### “Troubled waters for drinks giant

- Coca-Cola executives were supremely confident that their stylish purified water product Dasani – which its marketing brainiacs believed suggested relaxation, pureness and replenishment – would be a runaway success in the UK. After all, five years after its launch in the US, Americans were guzzling 1.3bn litres of the stuff each year.
- However, the bubble burst for Coca-Cola, which invested \$13m on the UK launch, when it emerged that the factory in Kent which made Dasani used ordinary tap water as the source.
- Thames water added to the sense of public outrage by mentioning that it charged just 0.03p for the same quantity as that contained in Dasani's 95p half-litre trendy blue bottle. The final humiliation came via the discovery that samples of the water inadvertently contained up to 22 micrograms per litre of bromate, a carcinogen, which is more than double the limit permitted in the EU.
- Within weeks of the launch, Dasani was pulled from UK shelves and plans to roll it out in Germany and France, were, well, put on ice.”

extract from <http://www.guardian.co.uk/business/2007/dec/27/topfivedisasters>

# An example where risk management has helped

## ISO Central Secretariat escalation plan in the event of H1N1 pandemic

**Level 0** : business as usual

**Level 1** : communication, putting in place hygienic preventive measures

**Level 2** : up to 19 sick/absent staff members:

- meeting of the crisis committee at the first confirmed case of the illness
- activation of the crisis committee and monitoring of the pandemic's evolution
- contact with the sanitary authorities

**Level 3** : as from 20 sick/absent staff members

- continued monitoring of the pandemic's evolution
- reinforcement of the hygienic preventive (cleaning) measures

**Level 4** : on decision of the sanitary authorities

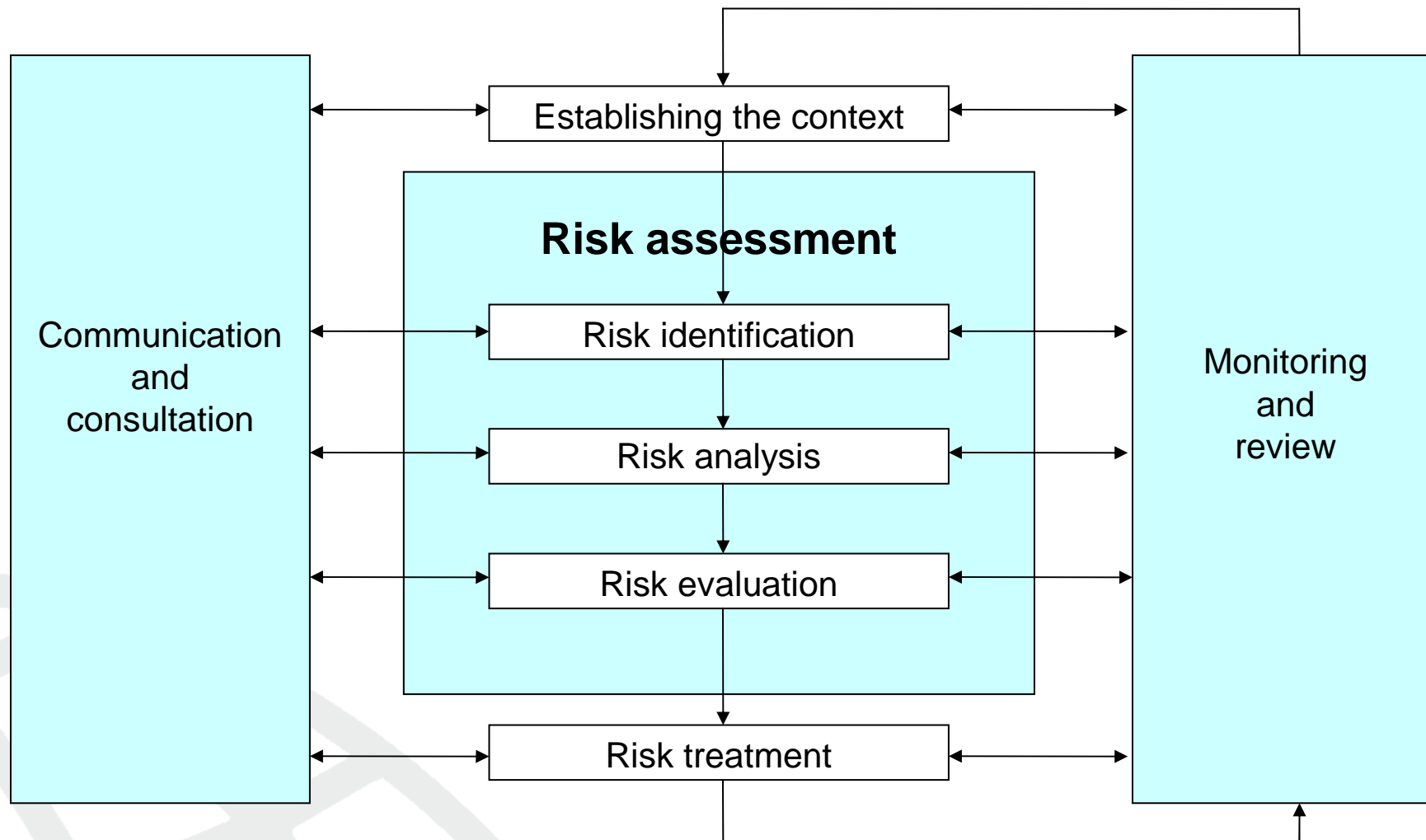
- closure (7 days) of the Central Secretariat
- functioning of ISO/CS with a limited number of nominated staff members





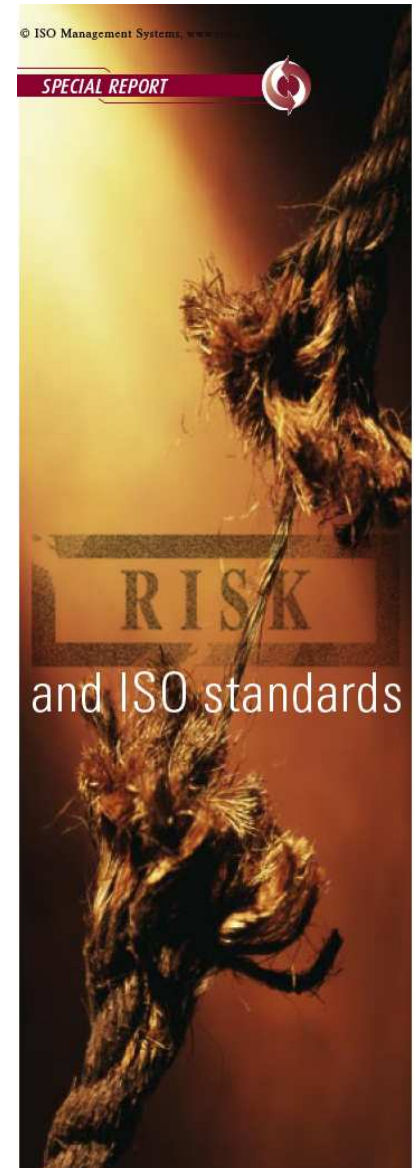
## An example where risk management could help

What needs to happen in the aftermath of the economic crisis?



## Conclusion

- All activity involves risk – opportunity for business, integral part of business
- Risk management should therefore be an integral part of management of the business
- ISO standards are pervasive and assist business – new ISO Standard on Risk Management (ISO 31000:2009) designed to be integrated into the management systems of business



**THANK YOU !**  
<http://www.iso.org>

