



#### Seminar Efficient Resource Management 2016-2017

Maria Passalacqua





- · We are still undernanding and quiet consumers...
- · Environmental legislation = headache

Business context is continually

Enforced legal requirements

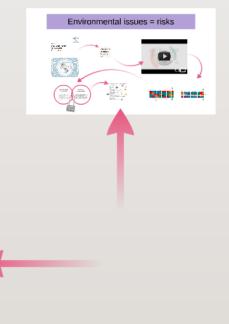
New opportunities Ensuring its own survival

Social & institutional pressure Smart cost reduction

Increased price of energy & other resources

Reduced availability of resources (circular economy) New market needs & expectations

· Environmental issues = Risks & opportunities





Competitiveness

- Understanding needs & expectations of the customers / market

- Systematic approach instead of isolated actions = continual

- Improved processes, products and services

- To anticipate changes in policies & new regulations





# Efficient reaction rearrangement Energy and assemblinghow shower, prepare Energy and assemblinghow of the following core ETAL ETEL management and authorities ETAL ETEL management and authorities ETAL ETEL management and authorities

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Business context is continually

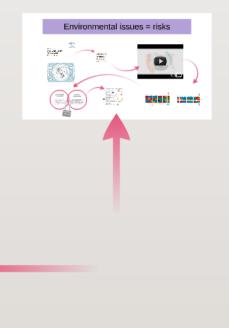
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### Efficient resource management

Environmental sustainability from a business perspective

Environmental issues = risks and opportunities for the business sector

EMAS - EU Eco-management and audit scheme



## **Business & Environmental issues**

Environmental sustainability from the business perspective: WHY?



- The macro-economic perspective is clear, but what about how a business is affected?
- Understanding that environmental issues are strategic, but what to do?
- Short-termism.
- Environment = extra costs.
- We are still undemanding and quiet consumers...
- Environmental legislation = headache
- Environmental issues = Risks & opportunities

# Business context is continually evolving

Enforced legal requirements

Social & institutional pressure

Smart cost reduction

Increased price of energy & other resources

Reduced availability of resources (circular economy)

New market needs & expectations

Business risks

New opportunities

Ensuring its own survival

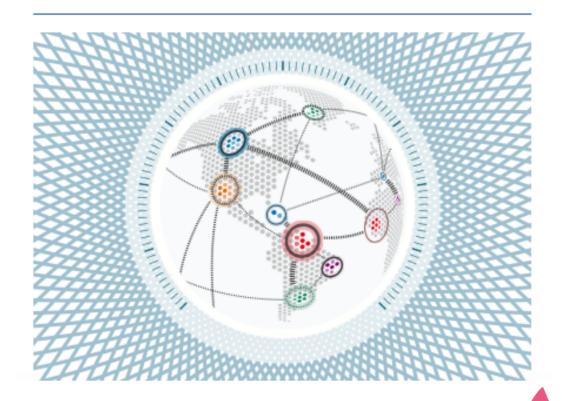
# Environmental issues = risks





Insight Report

## The Global Risks Report 2016 11th Edition



A global risk is an uncertain event or condition that, if it occurs, can cause significant negative impact for several countries or industries within the next 10 years.

A global trend is a long-term pattern that is currently taking place and that could contribute to amplifying global risks and/or altering the relationship between them.





Top 5 Global Risks in Terms of Likelihood										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1st	Breakdown of critical information infrastructure	Asset price collapse	Asset price collapse	Asset price collapse	Storms and cyclones	Severe Income disparity	Severe income disparity	Income disparity	Interstate conflict with regional consequences	Large-scale involuntary migration
2nd	Chronic disease in developed countries	Middle East instability	Slowing Chinese economy (<6%)	Slowing Chinese economy (<6%)	Flooding	Chronic fiscal imbalances	Chronic fiscal imbalances	Extreme weather events	Extreme weather events	Extreme weather events
3rd	Oil price shock	Failed and failing states	Chronic disease	Chronic disease	Corruption	Rising greenhouse gas emissions	Rising greenhouse gas emissions	Unemployment and underemployment	Failure of national governance	Failure of climate- change mitigation and adaptation
4th	China economic hard landing	Oil and gas price spike	Global governance gaps	Fiscal crises	Biodiversity loss	Cyber attacks	Water supply crises	Climate change	State collapse or crisis	Interstate conflict with regional consequences
5th	Asset price collapse	Chronic disease, developed world	Retrenchment from globalization (emerging)	Global governance gaps	Climate change	Water supply crises	Mismanagement of population ageing	Cyber attacks	High structural unemployment or underemployment	Major natural catastrophes







Top 5 Global Risks in Terms of Impact										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1st	Asset price collapse	Asset price collapse	Asset price collapse	Asset price collapse	Fiscal crises	Major systemic financial failure	Major systemic financial failure	Fiscal crises	Water crises	Failure of climate- change mitigation and adaptation
2nd	Retrenchment from globalization	Retrenchment from globalization (developed)	Retrenchment from globalization (developed)	Retrenchment from globalization (developed)	Climate change	Water supply crises	Water supply crises	Climate change	Rapid and massive spread of infectious diseases	Weapons of mass destruction
3rd	Interstate and civil wars	Slowing Chinese economy (<6%)	Oil and gas price spike	Oil price spikes	Geopolitical conflict	Food shortage crises	Chronic fiscal imbalances	Water crises	Weapons of mass destruction	Water crises
4th	Pandemics	Oil and gas price spike	Chronic disease	Chronic disease	Asset price collapse	Chronic fiscal imbalances	Diffusion of weapons of mass destruction	Unemployment and underemployment	Interstate conflict with regional consequences	Large-scale Involuntary migration
5th	Oil price shock	Pandemics	Fiscal crises	Fiscal crises	Extreme energy price volatility	Extreme volatility in energy and agriculture prices	Failure of climate- change mitigation and adaptation	Critical information infrastructure breakdown	Failure of climate- change mitigation and adaptation	Severe energy price shock

Economic Environmental Geopolitical Societal Technological



# Environmental Sustainability

"capacity of the environment to continue indefinitely to provide a healthy place for us to live and work and the resources necessary to sustain a healthy economy and businesses"

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# Business Sustainability

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"capacity of a business enterprise to continue to operate successfully, i.e. to generate sufficient and appropriate economic activity to meet stakeholders' requirements on an ongoing basis"

# Environmental Sustainability

"capacity of the environment to continue indefinitely to provide a healthy place for us to live and work and the resources necessary to sustain a healthy economy and businesses"

## Business Sustainability

"capacity of a business enterprise to continue to operate successfully, i.e. to generate sufficient and appropriate economic activity to meet stakeholders' requirements on an ongoing basis"



# Dealing with risks... and opportunities

Regulatory compliance/non-compliance

Transportation costs

Business reputation

Food supply

Insurance costs

Disaster preparedness and recovery

Supply chain disruption

Decline in crop yields, forest and ocean resources

Availability/non availability of certain products/substances/materials

Natural resource costs

Food plant, animal and human diseases

Water scarcity

Droughts, flooding, desertification, severe weather

Energy costs and supplies

Glacial melt and commensurate sea level rise

Transportation and infrastructure stability/instability

Permafrost instability

Business interruption and continuity

Ocean current changes

Infrastructure disruptions and maintenance



















# Competitiveness

#### Can be influenced by:

- Improved **processes**, **products and services**
- Innovation
- Understanding **needs & expectations** of the customers / market
- To anticipate changes in **policies & new regulations**
- Resources' optimization
- **Systematic approach** instead of isolated actions = continual improvement

## **EMAS**







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