Nestlé – Property Loss Prevention Program

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Agenda

1. Nestlé at Glance
2. Risk Management Framework
3. Property Loss Prevention
4. Continuous improvements
Our figures

- CHF 92.2 billion in sales in 2012
- 339,000 employees in over 150 countries
- 468 factories in 86 countries
- 2,000 brands
- 1 billion Nestlé products sold every day

Constant interaction with our consumers...!
Agenda

1. Introduction to Nestlé
2. Risk Management Framework
3. Property Loss Prevention
4. Continuous improvements
Group Risk Management Concept

Contribute to achieve objectives and protect company’s value

Risk size

Decision support

Prevention

Preparedness / Recovery

Financing

Residual

Anticipate

Prevent

Plan

Insure

Accept

OECD 12 September 2013
Captive Structure – Premiums / claims payment flow

Significant portion of risk retained within the Nestlé Group

Provides services and retains some risk

It’s Nestlé money!
Key messages

- Insurance has never prevented a loss
- Loss Prevention is key
- It’s “Nestlé money”
Agenda

1. Introduction to Nestlé
2. Risk Management Framework
3. Property Loss Prevention
4. Continuous improvements
Property Loss Prevention - Scope

• Property Fire Loss Prevention
• Technical Supports Greenfields
• Property Natural Hazards Loss Prevention
• Business Continuity Management
Property Loss Prevention

Average Fire Grading

- Fire Grading Evolution
- Number of visited sites

- Time periods: 31.12.2002 to Today

Graph shows a decline in fire grading over time, with recent years showing significant improvement.
Outcome

- Robust risk financing results
- Retention level increased during years
- Comprehensive Risk Management
Agenda

1. Introduction to Nestlé
2. Risk universe
3. Risk Management
4. Continuous improvements
Looking forward

- Going to assets protection
- Common Standards
- Natural Hazards mapping
- Built knowledge database
Questions?
Risk prevention & mitigation: Identifying mainstream opportunities

OECD High Level Risk Forum Experts Meeting,
12-13 September 2013
Local Action Moves the World

200 countries

1 million local governments

Changing role of local governments!
Bron: Bobbink TU Delft i.o.v. gemeente Rotterdam
Cities: some features

- Yesterday’s cities
- Planning & design: based on static conditions
- Drivers:
  - acceleration in dynamics
  - operating at different rates and time scales

- Disaster vulnerability is increasing
EU: what future we are heading?

- Budgets cuts
- How much should we spend on safety?
- Prominent role local actors and PP partnerships
- New drivers = new opportunities
- Need to retrofit existing property stocks
- More for less (multiple benefits)
- Opportunistic: using urban renewal
European adaptation projects in 2013?

ICLEI (2011) Financing the resilient city
Example 1: opportunistic mainstreaming

City of Dordrecht
City-wide Urban Resilience Upgrade

City of Dordrecht

- 150k inhabitants
- Island in delta: sea, rivers and rain
- Current protection 1:2000
Dordrecht’s adaptation strategy

<table>
<thead>
<tr>
<th>Level</th>
<th>Solutions</th>
<th>Completion</th>
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<tbody>
<tr>
<td>3 – Distaster mgt</td>
<td>Shelters Evacuation programme</td>
<td>2035</td>
</tr>
<tr>
<td>2 – Spatial</td>
<td>Compartimentalization Vital Infrastructure</td>
<td>2035</td>
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<tr>
<td>1 – Prevention</td>
<td>‘Delta-dike’ (no breach)</td>
<td>2030</td>
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Welcome to the MARE Project

The vulnerability of the North Sea Region to flooding has been demonstrated on many occasions in recent years. Municipalities and other organisations involved in water management have an urgent need to reduce flood risk, but lack a framework and the resources. The MARE project sets out contribute to development of a framework and resources by developing and demonstrating a practical, transnational methodology to implement urban Flood Risk Management.

Partners

- LAA Bergen
- LAA Don Catchment (Rotherham & Sheffield)
- LAA Dordrecht
- LAA Hannover
Climate Adaptation Mainstreaming Through Innovation

Background
The risk of flooding is increasing across Europe. Increasingly, cities take the lead in protecting their inhabitants and businesses. Often, these strategies and projects are implemented in isolation, leading to fragmented results and limited overall impact.

Opportunity
Cities that participated in the Interreg projects MARE, SKINT, SAWW, FRC and BlueCICA searched for solutions to overcome these technological and financial barriers.

Aim
In CAMINO, these cities from across the North Sea region work together to demonstrate approaches that reconcile climate adaptation and economic growth.

Approach
In all participating cities, policy makers, industry, and research collaborate to further develop innovative business cases and governance approaches in 4 steps:
- increased incentivization and competitiveness
- increased stakeholder engagement
- increased awareness and education

Results
CAMINO will help mainstream climate adaptation by delivering:
- Pilots in 6 cities that showcase novel governance
Mapping critical infrastructure
Mapping autonomous investments
Identify mainstream opportunities: improve flood defence combined with urban planning
Example of Measures: improve emergency management through urban planning: shelters & evacuation
Identify mainstream opportunities: improve resilience of critical infrastructure
Adaptation opportunities from investments in other policy domains: mobility, environment, economy & housing, energy
Flood resilience upgrade programme (simplified process)

**Current**
- CA objectives
- Risk Assessment
- Option analysis
- CA strategy
- CA projects
- Performance assessment

**Proposed**
- CA objectives
- Risk Assessment
- Option analysis
- CA Strategy
- RU projects
- Performance assessment
- CA projects
- Autonomous Investment plan
Example 2: Multiple benefits

Rotterdam Airport

- **Domain of impact reduction, emergency management & recovery**
- **Domain of protection & technical optimisation**
- **Domain of day to day values & multiple benefits**
Impact /Costs

Danger to life and structures

Damage

Nuisance

Return Period

Domain of impact reduction, emergency management & recovery

Domain of protection & technical optimisation

Domain of day to day values & multiple benefits
Return Period / Costs

1. Day-to-day events
   - Danger to life and structures
   - Damage
   - Nuisance

2. Standardized events
   - Providing sheltering & escape routes

3. Exceedance events
   - Disaster proofing the urban fabric

4. 

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Diagram explaining the relationship between return period, impact costs, and events that range from day-to-day nuisances to exceedance events requiring disaster proofing.
1. Day-to-day events
2. Standardized events
3. Exceedance events

Domain of disaster resilience
3. Exceedance events

Domain of disaster resilience

Domain of liveability
Rotterdam-The Hague Emergency Airport

Shelter, rescue and relief cluster
Rotterdam-Rijnmond area
Rotterdam EDO Scenario
Rotterdam Emergency Shelter
Rotterdam Emergency Airport - bereikbaarheid
Inventarisatie Rotterdam Emergency Airport
Challenges for local action

Agents for change

Need for better frameworks (financial and legal) for local governments to be able to act

Need for more horizontal and vertical coordination

Improving accountability and transparency

How to improve sharing of information?
EDF’S ACTION PLAN FOR ADAPTATION

From weather’s crisis management
to an action plan for adaptation

1. Electricity and climate
2. Several timeframes in an action plan for adaptation
3. Examples
4. Conclusion

September 2013
IMPACTS OF EVOLUTION OF THE CLIMATE ON ELECTRICITY

Production
- Centralized/ Decentralized
- Thermal (nuclear, fossil, biomass, ...)
- Renewables: Hydropower, Windfarm, Solar, ...

Average, repartition within day and year
Extreme events

Transport and distribution
- Network structure
- Smart grid

Demand
- Evolution of needs
- Local/sectorial
- Buildings
- Industry / business / Residential

Society
- Behavior
- Health
- Economy
- Resilience

Action plan for Adaptation
FROM WEATHER CRISIS MANAGEMENT TO CLIMATE CHANGE ADAPTATION

• Lothar and Martin STORMS 1999
  • Massive network disruption
  • 2.2 Millions of customers without electricity (it took more than 2 weeks to recover)

• The heat wave: August 2003 / 2006
  – Stress on water resources
    • An increasing pressure to “share” our resources
  – Very high temperature of the air
    • An increasing demand for cooling not only AC
  – Very high temperature of water
    • Limiting thermal production
  – A global cost in 2003 estimated at 300 millions Euros
AN ACTIONS PLAN FOR ADAPTATION
SEVERAL TIMEFRAMES

• Crisis management
  – investment and organization to reduce the impact of extreme events on our facilities to be able to serve our customers and be part of the resilience of communities.

• Investment in existing facilities
  – to reduce their sensitivity to the estimate climate impacts
    • The very important point is how and when to invest in any transformation of our facilities
    • But it is also about organization and management.

• How to define the new requirements for our facilities
  – that will be built for at 50/60 even 100 years in the case of hydropower....and will have to face sea level rise, water scarcity, temperature rise ....

• R and D
  – we must support research on local climate impact, on extreme events alert management and develop softwares, models more related and dedicated to our needs.

• There are interactions between the four topics and none of them can be play without the others
• Either can they only be driven by the company, it has to be built with communities, local authorities and research centers.
# AN ACTIONS PLAN FOR ADAPTATION

## SEVERAL TIMEFRAMES

### Crisis management
- **Anticipation**
  - Organization
  - Forecast and alert
  - Crisis organization
  - Coordination of power generation on a watershed
  - Commercial deals with consumers to reduce demand if needed
- **Practicing, training, information and dialog**
  - with local authorities

### Adapting existing assets
- **Identification of vulnerabilities**
- **Assessment and simulation of impacts**:  
  - Wind, flooding, heat, drought, snow,...
- **Integration of water scarcity**
- **Hardening distribution and transmission lines (wind strength, snow) and cable (temperature vulnerability, flooding)**
- **Securing strategic points** (flood, wind, ..)

### Defining new facilities
- **Developing new technologies**
  - Resilient wind turbines
  - Piano Key Weir
- **Diversification of the energy mix**
- **Assessment and simulation of impacts**

### Tomorrow & the Long Term
- **Climate change as a risk** is an additional stress on existing and future decision making processes
- **Evolution of needs and climate change**
- **Take into account the evolution of generation**
  - Which role for decentralized generation
- **Research on local climate forecast**
Organization

- A workforce organized in squads
  - 2500 technicians trained, available 24/7 anywhere in France (which require skills management)
  - Organized in “squads” by competencies
  - With their own equipments
  - Operational at once

- National and local coordinated crisis management in relationship with authorities

- Material
  - 11 storage platforms allover France with 2000 generators and emergency kits

Investment and preparation

- Generators and equipments
- Predefinition with local authorities of action plan in case of blackout including the location of generators and defining priorities
- Training and practicing locally
- Weather forecast and alert systems
Our customers need information and transparency

- By 1999, our teams were focus on diagnostic of the network and its recovery
- Today there are teams in charge of the relationship with the customers and the authorities to inform them on the situation
  - The local broadcasting
  - Today the social networks
WATER MANAGEMENT

Reducing the thermo-sensitivity of our thermal fleets based on knowledge, organization and investment.

– Knowledge (with the scientific community)
  • Developing a tool to forecast flow and temperature in the rivers where we operate thermal facilities
  • Measuring and reducing the impact on biological life in river

– Organization
  • Optimizing the use of water in order to fulfill our commitments and produce electricity: an internal optimization within the watershed management.
  • Planning maintenance outages of nuclear power units, taking into account the variability of cooling system

– Investment
  • Improving the performance of air cooling towers
  • Refurbishment of multiple-parameter water quality measurement stations.
  • Revisit the specifications of the different equipments that can be affected by an extended or extreme hot weather which led to changes some of them.
AN EVOLUTION OF WATER RESOURCES: MELTING OF A GLACIER

Which leads us to a redesign of the sub-glacial water intake (Mer de Glace) related to the accelerated glacier retreat.
An important shift in mindset:

• We are used to prepare to events by learning from the past

  • With the changing climate we can’t anymore

• We hope the climate modeling and forecasts will give us a new set of vision

  • They will not

WE HAVE NOT TO RESIST ANYTHING, WE MUST CHOOSE OUR VULNERABILITIES
APPENDICES
Resilience and adaptation to climate change: electricity utilities’ perspective
WHICH ROLE FOR DECENTRALIZED GENERATION IN CITIES’ RESILIENCE

From a centralized generation system to a system combining centralized and decentralized

- To develop local energy resources
- To develop energy efficiency
- To increase resilience
- Through local loops

when

- Optimizing the existing infrastructure
- Ensuring technical consistency and reliability of the system
- Ensuring financial solidarity
- Ensuring security of supply at lowest cost
EXAMPLE : EVOLUTIONS OF NEEDS FOR HEATING

To evaluate the needs for heating we measure the difference between 18°C and the average temperature it's named "degrés jours" for heating.

~ -10% for France until mid of the 21st century

~ -25% for France until mid of the 21st century
HYDROPOWER AND CLIMATE

Evolution of the daily hydropower production capacity for DRAC DURANCE basins in 2003

Effects of a hot year on reservoir
1. Early melting
2. Less rain in summer
3. Variability