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The Public-Private Partnership for Critical Infrastructure Crisis Management in Lombardy Region, Italy



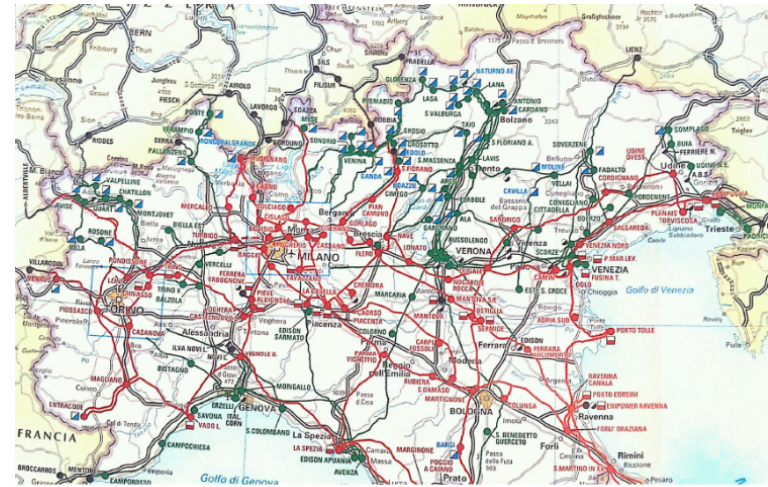
International Workshop on Emergency Management For Critical Infrastructures Crises

04 October 2012
ENEA Headquarters, Lungotevere Tahon di Revel 76, Rome

Key questions

1. What are the main **challenges** raised by CI disruptions to Crisis Management?
2. What are the **limits** of existing strategies for Crisis Management?
3. What are the **solutions** to improve them?

Lombardy Region, Italy



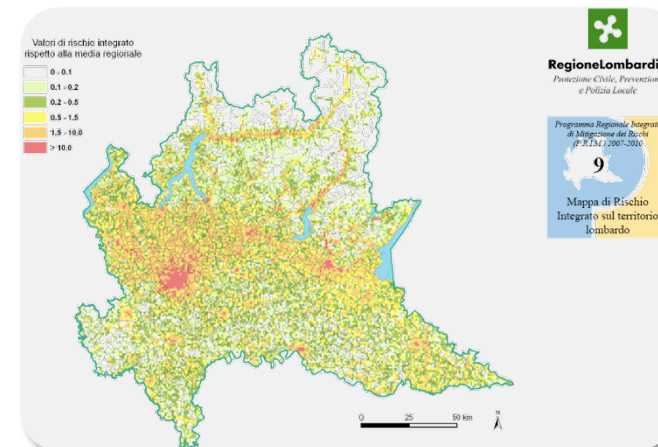
■ CHALLENGES are:

- 10.000.000 inhabitants (16,4% national population)
- 20, 4% of the national GDP
- High concentration of Critical Infrastructures systems

- How are CI systems organized?
- What can happen and **when**?
- Who is responsible?
- ...

Background to the PReSIC Program (*Regional Program for Critical Infrastructure Protection*)

- Past events (e.g. severe snowfall in 2009, blackout in 2003)
- Regional Risk Assessment : high number of CI systems are exposed
- EU Directive 2008/114/EC on the identification of European Critical Infrastructures



- **LIMITS** are:
 - CI disruptions **not** taken into account in Crisis Management Strategies;
 - Private operators are **not** involved (lack of trust, little coordination and collaboration)
 - Lack of **preparation**, Lack of **communication** tools;
 - **Fragmented vision** about a common emergency management strategy

Objectives of PReSIC

1. Develop a better **knowledge** of the regional interdependent systems of CIs and a better understanding of **potential disruptions scenarios**
2. Improve **prevention, early detection and emergency management practices** of the regional Authorities to face CI disruptions (Focus on communication flows)
3. Define and set up a **collaboration process** between Civil protection Authorities and with CI operators based on governance principles.

Main actors involved in the PPP

RAILWAYS

Trenord

FNM

TEB

Road & Highways

ANAS S.p.A.

ASPI S.p.A.

MTMS S.p.A.

Civil Protection Authorities from the Lombardy Region

RGS S.r.l

Politecnico di Milano

AIRPORTS

SACBO S.p.A.

S.E.A. S.p.A.

ENERGY

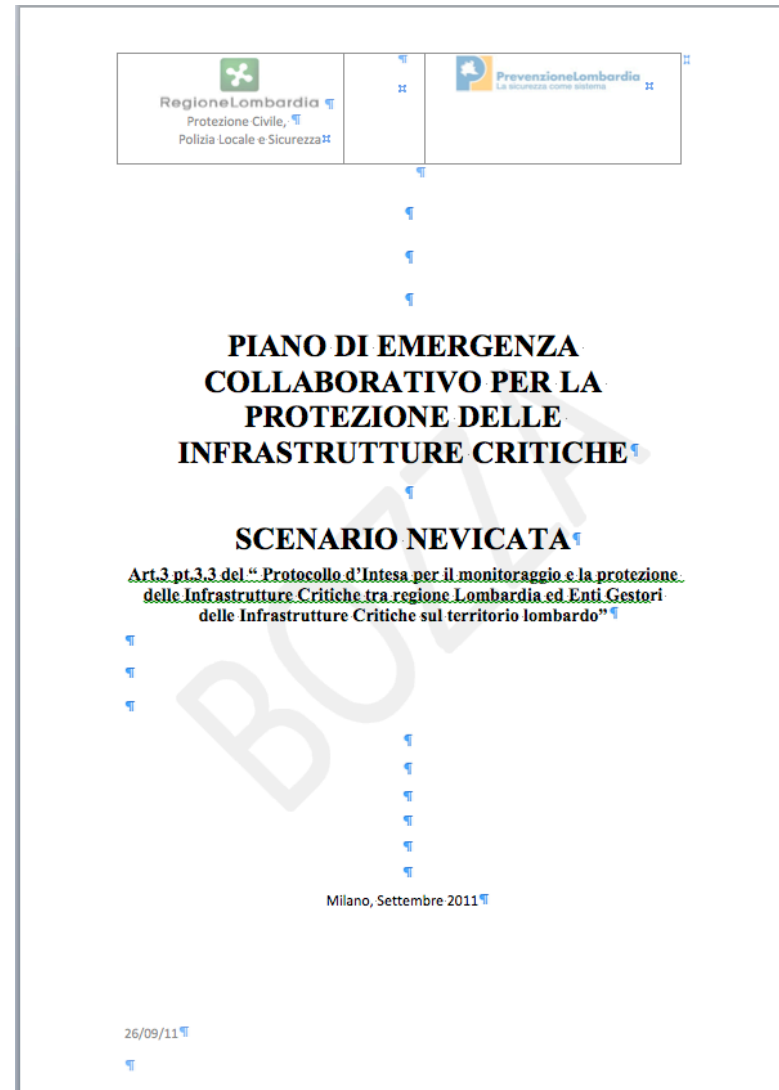
A2A S.p.A.

ENEL S.p.A.

TERNA

Implementation of the PPP

- 14th December 2010 :
Institutional Protocol for collaboration is signed by the President of the Lombardy Region and the CEO of 16 major CI operators
 - Shared objectives to be reached
 - Working modalities
 - Planning of the activities



Scenarios

2011: Snowfall event



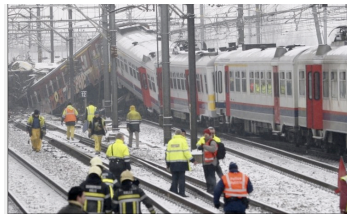
Source of Hazard:
Natural / Meteo

Scale:
Regional

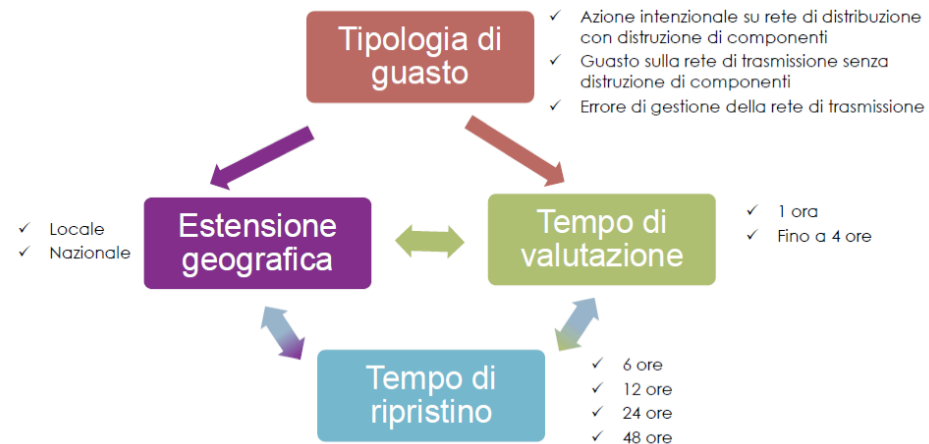
Infrastructure involved:
Transportation and Energy

Propagation and cascading effects:
Melting snow and flood

Interdependencies:
Electricity and Railways
Road and Highways / Railways /
Airports



2012: Blackout (3 scenarios)



1. What are the consequences for your infrastructure (1st-order effects)?
2. What are the consequences related to the impacts on other CIs (2nd-order effects)?
3. What are your requirements in terms of communication flows (pre-emergency, emergency, recovery phases)?

Main results of PReSIC: increased knowledge of interdependencies/cascading effects

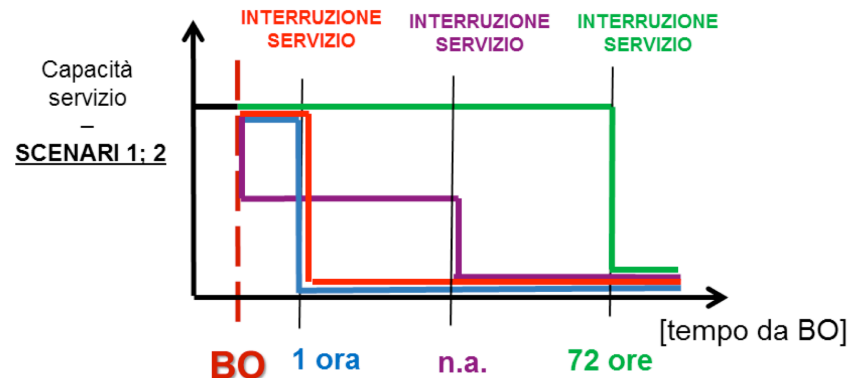
2011: Increased knowledge of interdependencies of regional Energy and Transportation Systems

Fornitore di servizio \ Utente di servizio	TRENORD S.p.A.	RFI S.p.A.	Gruppo FNM	TEB S.p.A.	SACBO S.p.A.	S.E.A. S.p.A.	ATM S.p.A.	ANAS S.p.A.	Autostrade per l'Italia S.p.A.	Milano Tangenziali - Milano Serravalle S.p.A.	A2A S.p.A.	ENEL S.p.A.
TRENORD		F	F,C				L					
RFI S.p.A.												
Gruppo FNM	C,F	C,F,G				C,F,G	F,G	G	G	G	F,G	F,G
TEB S.p.A.	G,C	G,C			C						F	C
SACBO S.p.A.	G					G,F		G,F	G,F	G,F		F
S.E.A. S.p.A.	G,F		G,F		G,F		G,F	G,F	G,F	G,F	F	F
ATM S.p.A.	F	G	F			G					F	F
ANAS S.p.A.									F,C	F,C		F,C
Autostrade per l'Italia S.p.A.										F,G		
Milano Tangenziali - Milano Serravalle S.p.A.	L		L	L	L	G,L	F	F,C	F,C		F,G	F,G
A2A S.p.A.												C
ENEL S.p.A.											F,C	

2012: Identification of critical nodes in case of Blackout

- Main train stations: Cadorna; Stazione Centrale; Stazione Garibaldi;
- Malpensa Airport;
- Area Rho-Pero (Expo 2015);
- Trains circulating in non-urban areas.

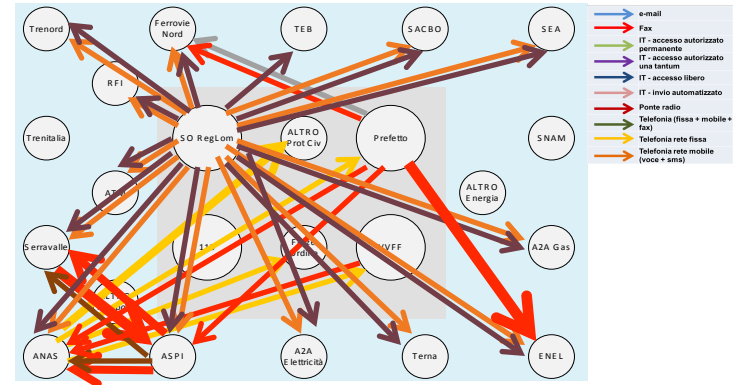
Vulnerabilities? resources? support requirements?



Implementation of an Emergency Communication Framework

■ Framework to define **who, when, what, why and how to communicate**

- From operator to operator
- From operator to Regional crisis management control room
- To population



Web Base Information Sharing System (SUSI – Unique System for Sharing Information)



Forms and bulletins



Consolidation of a collaboration process between public and private partners

■ Create a **trustable environment**

- Equal status
- Win-Win Situation
- Pro-active
- Long-term Commitment
- Trust building

Public Authorities
can improve
the protection of
citizens

Private Operators
can improve the
business
continuity and
customer
satisfaction

■ **Sharing** of information and Identification of common goals and strategies

- Flexibility
- Voluntary
- Mutual understanding
- Shared responsibilities

■ One of the **Solutions** to build **regional resilience**



Conclusions

- PPP contribute to **increase regional resilience**, hence to contribute to disaster risk reduction
 - Increased coping capacities to face CI disruptions but also other types of emergencies
- **Cost-efficient solution**
- **Further challenges**
 - Lombardy: expand to other CI operators, consider new scenarios
 - Raise awareness of local-regional Authorities and private stakeholders

Thank you for the attention!

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2nd INTERNATIONAL WORKSHOP ON REGIONAL CRITICAL INFRASTRUCTURE RESILIENCE:

“THE RESILIENCE JOURNEY”

15 – 16 November 2012

SCOTTISH GOVERNMENT
VICTORIA QUAY
EDINBURGH
EH6 6QQ

- Is there value in taking a Regional approach to Critical Infrastructure Resilience?
- Protection vs. Resilience or is it all Resilience?
- Putting policy into practice – how do the operators cope?

This workshop seeks to bring together lead Government Officials, emergency responders, and critical infrastructure operators from across the World, with a specific focus on improving our understanding of the regional aspects of Critical Infrastructure Resilience (CIR).

Representatives from over ten Countries will share the challenges, opportunities and best practice case studies from their experience in developing a Regional CIR approach.

For more information visit: www.recipre.org
or contact James.urquhart@scotland.gsi.gov.uk (programme content)
or gemma.bain@scotland.gsi.gov.uk (logistics)

