CONFERINŢA NAŢIONALĂ A A.R.T.S.

Siguranţa şi securitatea cetăţeanului şi a comunităţii
Aportul tehnicii de securitate
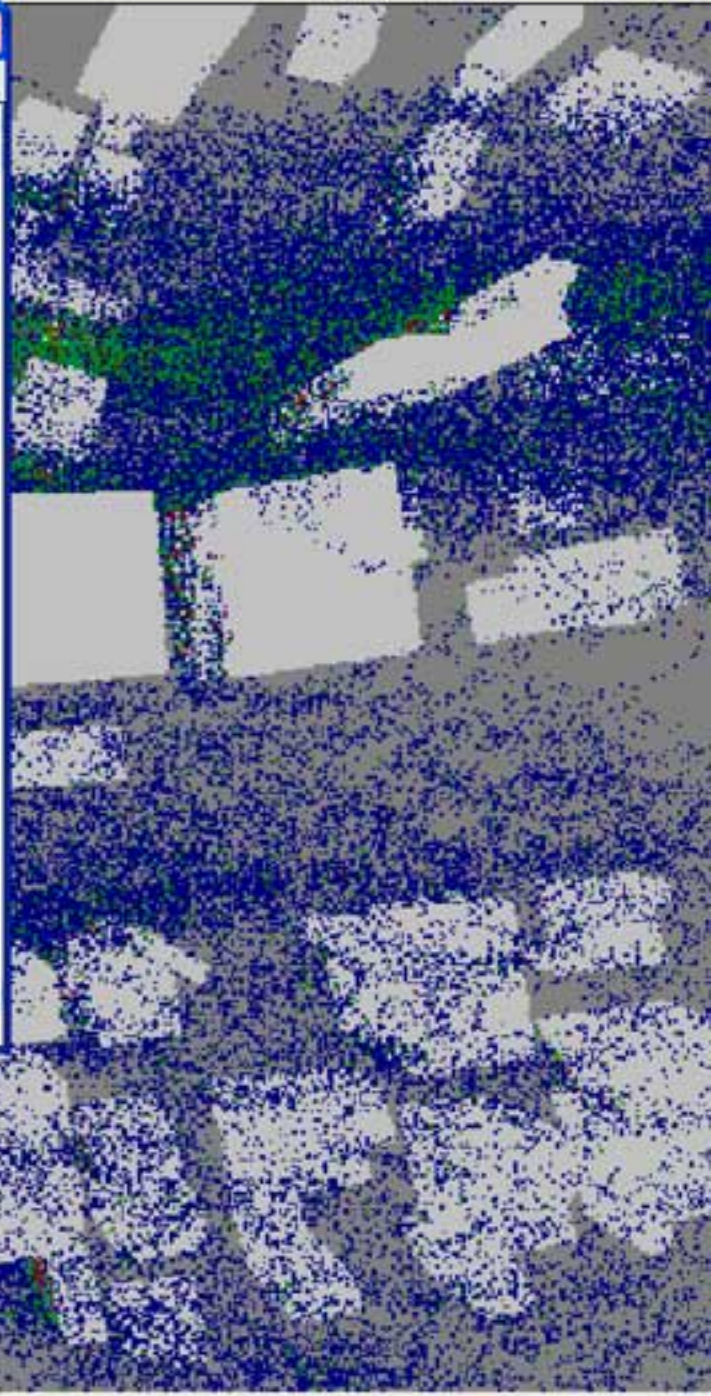
The increase of urban violence

Dr. Liviu Muresan
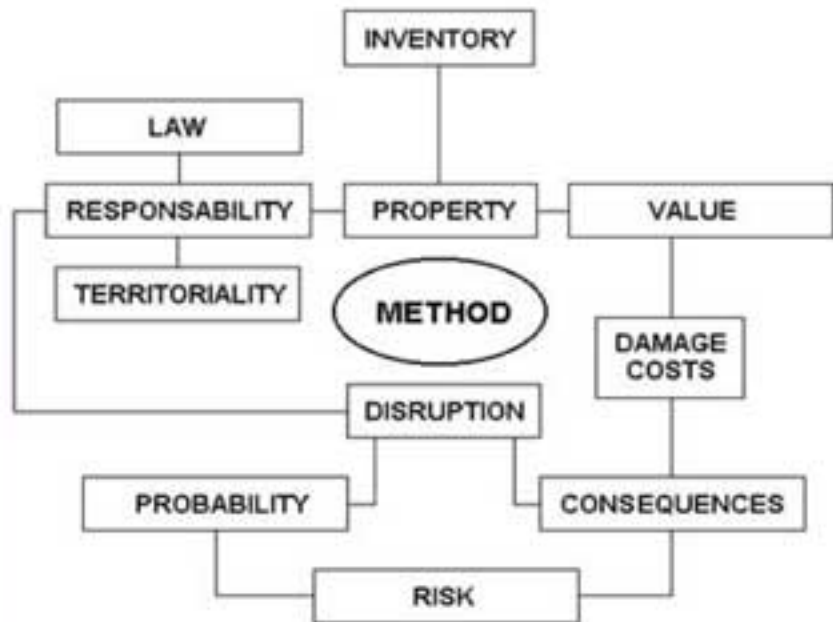**Executive President**
EURISC Foundation

ARTS and EURISC Foundation Conference
3 June 2009, Crowne Plaza Hotel
Bucharest

MAPS

INVENTORY

LAW

RESPONSABILITY — PROPERTY — VALUE

TERRITORIALITY — METHOD

DAMAGE COSTS

DISRUPTION

PROBABILITY — CONSEQUENCES

RISK

STAKEHOLDERS

NUMERICAL MODELING OF PHYSICO-CHEMICAL PHENOMENOLOGY

ABNORMAL EVENT SIMULATION

DATABASE I/O

METHOD

LAND & POPULATION AUTOMATED STATISTICS

GIS I/O MAPPING

LISTING REPORTING

e-COMMUNICATING

BUSINESS

AUTHORITY

PUBLIC
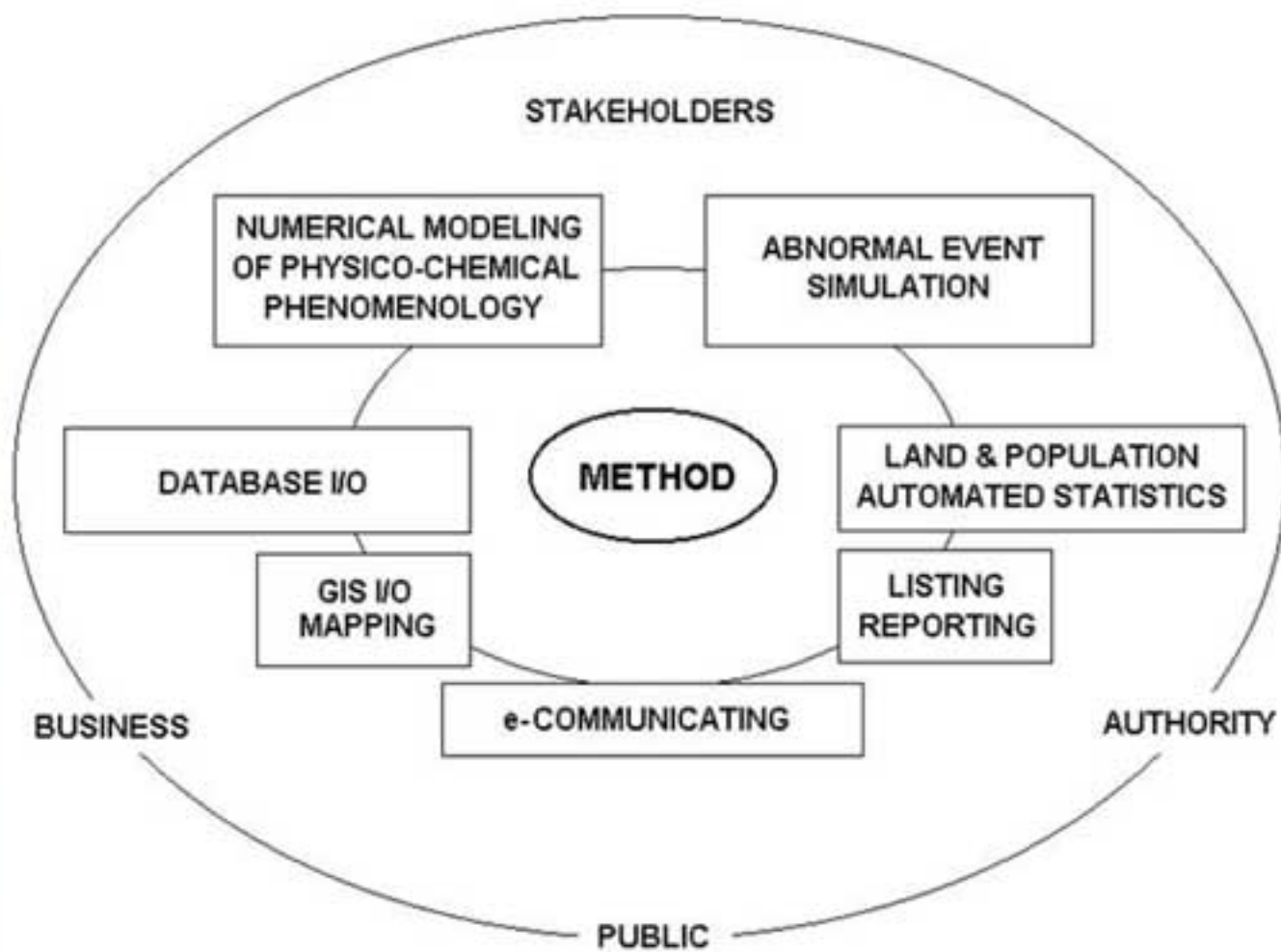
Future Disasters

New York

Rising Sea Levels

Collapsing polar ice sheets might result in sea levels increase 1-2 m this century and several more the next one

- 1m incr...
- 4m inc...

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Tokyo Earthquake

There is 30% chance that Tokyo will be hit by an earthquake causing £500B in the next 30 years. Japan economy might collapse while greatly affecting the global economy

OECD Studies

- ❑ By 2050 the world population is set to increase to 9 billion from today's figure of 6 billion, and practically all of the additional 3 billion people will live in cities

- ❑ A huge fraction of the world population will be seriously exposed to risk

- ❑ Many megacities will be located in earthquake fault zones lacking adequate urban planning and construction norms

- ❑ Changes in the environment are also a driving force

Open questions arise that are linked to changing socioeconomics forces. Does greater economic concentration mean increased vulnerability? If government's role is shrinking generally, who's really in charge in an emergency? If the public's perception of risk is increasingly formed by media that seek to entertain rather than by expertise, could such lack of awareness lead to panic and other misguided behaviour in the face of risk? (OECD)

The concern about risk

❑ New and terrifying events are happening as we take our first steps into the 21st century

❑The world's population has always been faced with "risk" – but the difference today is that risks can now reach magnitudes of harm that hadn't been imagined in modern times

❑They have the potential for inflicting devastating damage on the vital systems and infrastructures on which our society depends

❑The menace to all the people value – the environment, property, health, life itself – has never been greater.

OECD Emerging Risks in the 21st Century – An agenda for Action

❑ Risk-management is often based on past experience – a course of action that might lead to critical failures in a rapidly changing environment

❑ It is impossible to see ahead without knowing the driving forces behind risk

❑ Change within these forces are bound to reshape conventional hazards and create new ones, modifying vulnerability to risks, transforming the channels through which accidents spread, and altering society's response.

❑ Urban infrastructure, while the source of much urban vitality, can also be a key source of fragility. The reliance of cities on technical, networked infrastructures to bring in food, energy, information and people, and move out products and waste makes this infrastructure a target for state or non-state terrorist group violence.

❑ Moreover, heavily mechanized and networked cities have lost the skills necessary to provide essential services for themselves when disasters or war disrupt urban life, which may ironically make less advanced cities more resilient.

❑ On city fragility, there were noted both external and internal sources of failure. Externally, terrorism has increasingly targeted cities for maximum disruption, while the growth in "infrastructural wars" – perpetrated by states against the roads, water and electricity system that support the urban centres of enemies, or by insurgent groups who attack urban vitality using urban features like car and truck bombs – has posed a threat to urban civilian life and security.

❑ Internally, the implosion of global national politics into the urban world has been exacerbated by the militarization of gangs, police and other armed groups, rapid urbanization and an urban youth bulge, social polarization in horizontally unequal cities, and resource scarcity/urban unemployment.

❑ Early warning indicators for city fragility include rising murder rates and gang activity, rapid population growth without concomitant economic activity, more frequent people-power events in cities (demonstrations, riots, strikes).

❑ The dynamism of urban centres makes prediction difficult, however.

- The basic difficulty with societal infrastructures, call them critical infrastructures, is that they are **extremely fragile**. It takes only a seemingly minor incident like a power transformer failure or an anonymous bomb threat or a road / rail traffic crash to send the entire structure into failure mode.

- In event of **malicious threat, natural disaster or technical failure**, we need to understand the systematic nature of infrastructures if we are to be able to respond quickly and effectively to get the system back in its performance capability limits.

The sources of our vulnerabilities are threefold

- "The first are *concentrations of energy*, such as explosive and toxic substances (largely at industrial storage and process industries), highly flammable substances (e.g., dry or diseased woods, brush), and dams (one of the concentrations we can do little about).

- The second are *concentrations of populations* (in risky, even if desirable, areas), and especially when high-density populations also contain unnecessarily high concentrations of explosive and toxic substances, such as ruptured oil storage tanks in the case of Katrina and propane tank farms in St. Louis that were nearly set off by a huge flood.

- The third are *concentrations of economic and political power*, as with concentrations in the electric power industry, in the Internet (e.g., the "monoculture" Microsoft has created with the Windows operating system), and in food production such as beef and milk". (C. Perrow)

A Corollary

- *The three sources are interrelated.*

...Concentrations of economic and political power allow the concentrations of energy, generally by means of deregulation, and these tend to be where there are concentrations of populations...

- "Much of our *critical infrastructure is in the hands of large corporations* and, like our government, these private organizations are prone to error, in the form of industrial accidents as well as their failure to provide ample protection from natural and terrorist disasters.

- These risks are *national in scope*, rather than confined to an area impacted by hurricanes or floods. The private sector contains some of the largest vulnerable concentrations with catastrophic potential."

- *Disasters from natural sources, from industrial and technological sources*, and from deliberate sources such as terrorism have all increased in recent decades, and no diminution is in sight.

- *Weather disturbances* are predicted to increase; low-level industrial accidents continue but threaten to intensify and the threat of cyber attacks on our "critical infrastructure" becomes ever more credible; foreign terrorists have not relaxed.

- *Cataclysmic fantasies proliferate* on movie screens and DVDs. Scholars write books with "collapse," "catastrophe," in their titles.

- We have neglected a fundamental response to the trio of disaster sources. Instead of focusing only on preventing disasters and coping with their aftermath, which we must continue to do, we should *reduce the size of vulnerable targets*.

- WMDs already litter our landscape; terrorists need not sneak them in, and they are more likely to be triggered by natural and industrial disasters than by terrorists.

- Ninety-ton tank cars of chlorine gas are *WMDs* that travel daily through our cities; dispersing the deadly gas via a tornado or hurricane, an industrial accident, or a terrorist's suitcase bomb would endanger up to seven million people.

- Community living and social interactions are left increasingly in the hands of actors and basic institutions, which open a new perspective concerning security policy extending beyond the primary models of proximity or neighbourhood police and even local security contracts.

- The urgent need to reflect on formulas that permit, on the basis of the rigid cooperation between architects, urban planners and security experts, to include security in the initial conceptions and planning of cities;

- Finding common debate points to communicate between different realities, diverse cultures and dissimilar social, political, economical, and historical situations;

The phenomenon of urban violence, and the feeling of insecurity resulting from it, are essentially within urban contemporary issues to respond society's demand for security, public, private and community methods direct the new urban policy of large crowds.

By focusing on urban development practices attempting to physically resolve insecurity problems and feelings in cities, we can analyze how violence, "insecurity" and security practices are currently at the origin of a radical and significant transformation of urban space and its use of inhabitants.

- Urban policy defines security and security orients urban policy;

- Public spaces are a priority for the security policies of metropolies;

- Cities don't posses sufficient analytical tools to better understand the needs of the citizens and to establish priorities within an action plan;

- Cities need to elaborate decision-making tools for public policies and to enforce the capacity of the local community;

Globalization has allowed the deployment of new forms and characteristics of violence, based not only on the trans-nationalization of violent methods and means, but also on the trans-nationalization of analytical tools.

Laroche, 2000

Urban violence exists because cities exists.

Charlotte Boisteau

Approaches of urban violence

- The "return of dangerous classes" – or using fear that youth of lower income families are a burden to our society;

- The return of barbarism – the crisis of civilisation, chaos or anarchism, that can be related to the conflict of cultures;

- The "return to social conflicts" - the struggle between social classes.

- The public policies implemented by authorities no longer satisfy the need of security caused by the growing sentiment of insecurity;

- Use of public-private partnerships, as the state is no longer able to control urban spaces alone;

- Violence must be considered related with other elements composing the urban landscape, either judged positively, such as arts, careers or urban leisure or negatively, like crime, underground economy, corruption, but never on its own;

- Urban violence, as a complex phenomenon, can never occur exclusively;

- It interacts and is the result of interaction, frequently a social interaction, settled in an instable manner on the basis of an inequality of power between social actors.

- The privatisation of the public space is less a paradox than a symbol of its destruction;
- After privatisation, public now means that space is open for "anyone" to do "whatever they want";
- Public spaces provide visibility to cities and help maintain a certain cohesion in urban territories;
- Public space is a container of urban cultures, the integrator of diversity, a source of balance between minorities;

- The appearance of security-focused urban planning does not improve the security of the whole city or the region concerned;
- The security of community live, public spaces and individual movements is part of a contemporary society project;

Water shortage

- A crisis is looming over water shortages worldwide;
- By 2025 more than half the nations in the world will face freshwater stress or shortages and by 2050 as much as 75% of the world's population could face water scarcity.
- Water is a critical element of sustainable living, alongside conservation of resources, good air quality and sound urban planning.

The expectancies for security are not the same for all citizens:

- Some attribute security to the economic, educational and health means that they posses.

- Other attribute this security to the private vigilance that protects their houses from acts of vandalism;

- The cities are not homogeneous, neither spatially nor socially and the local authorities have to respond to the security demands.

Interactions among actors

- Interaction between different actors of the city si crucial;

- The public actors, the community and the private actors have to communicate and work together in order to better target the common objective of security;

- Citizens have to take responsibilities, which enables them to play a role in the community.

- *ESRIF is focusing on the broader business cycle of security that embraces goods and services, technologies, procedures, practices and other "fieldable" research results. Given that close cooperation between the demand and supply sides is key, ESRIF is analyzing different business and investment models to ensure that solutions such as critical infrastructure protection are developed and delivered to the market on a progressive, dynamic, sustained and affordable basis.*

Complexity and Interdependence

In line with the European Security Strategy and based on an assesment of relevant policy documents, ESRIF perceives a broad spectrum of threats and risks to European security. This includes (2008):

- Organised crime

- Corruption and money laundering

- Sabotage

- Radicalisation and extremism

- Terrorist acts

Complexity and Interdependence

- Proliferation of weapons of mass destruction/disruption
- Regional conflicts and state failure
- Natural disasters and pandemics
- Man-made disasters such as major industrial accidents
- Unintended consequences of the introduction and use of new technologies
- Reduced access to energy and natural resources

What is the Joint Security Research and Innovation Agenda?

A strategy document:

- Describing the relevant political domains where security issues play a major role with a view to the threats and challenges coming up in the next 10-20 years;

- Assesing these expectations and the required capabilities of responsible authorities and civil security forces;

- Suggesting the technology and knowledge based "solutions" required to acquire these capabilities;

What is the Joint Security Research and Innovation Agenda?

❑ Not suggesting particular technologies as such, as finding the best solutions is part of the research later, but examples of key technology areas could be given

❑ Linking the solutions to society and human related issues

❑ Providing structured lists of research topics along timelines

o Providing recommendations on the take-up of the research outcome concerning such solutions

o Providing further recommendations on the cooperation of security policy and security research

Development of a Joint Security Research and Innovation Agenda?

- Taking a mid to long term perspective
- Driven by the demand side of security technologies and respecting civil liberties, being prepared in cooperation of demand, supply and civil society side representatives
- Involving public and private players both from the national and European level on a voluntary basis
- Providing strategic advice for European and national security research programme owners
- Aiming at an impact on security research and innovation, which implies the take up and deployment of the research outcome
- Through the overall process also having a positive impact on the development of the European security equipment market

ESRIF Working Groups

- WG1: Security of the citizens
- WG2: Security of critical infrastructures
- WG3: Border security
- WG4: Crisis management
- WG5: Foresight and scenarios
- WG6: CBRNE
- WG7: Situation awareness including the role of space
- WG8: Identification of people and assets
- WG9: Innovation issues
- WG10: Governance and coordination
- WG11: Human and Societal Dynamics of Security