



Structure

- Situation and Complexity of Current Tasks
- Information Management
- Some Challenges
- Recommendations for Action



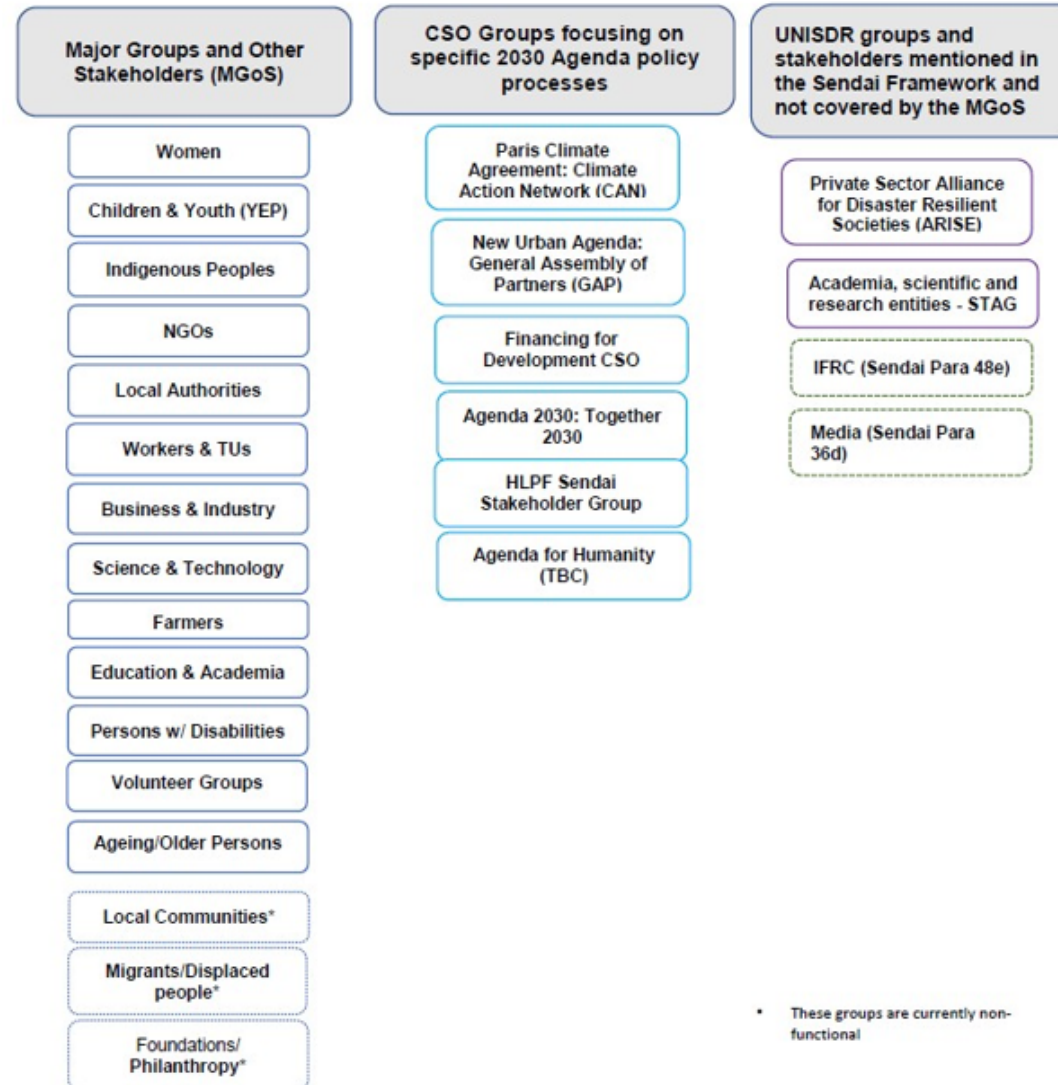
Situation and Complexity of Current Tasks (1)

The massive complexity of cross-organizational information flows for decision support and operational management for emergency services, public administration, law enforcement agencies, critical infrastructure operators, the private sector, civil society organizations/institutions and civil-military cooperation requires comprehensive interoperability for information in all phases of disaster management (prevention, resilience management, long-term and short-term preparedness, early action, first aid/response, aftercare and reconstruction).

Annex II List of Stakeholder groups

Core

Stakeholder Advisory Group Visual





Stakeholders / Pillars of Societal Resilience in all Phases of the Disaster Management Cycle

Organizations that stand up for people

Parliamentarians

Lawyers

Insurance companies

Local and national charities

Organizations for family caregivers

Technical and material assistance for reconstruction

Damage repair in relation to race, education and poverty

Support in the search for financial aid

Medical associations

Chambers of pharmacists

Chambers of nurses

Chambers of psychotherapists

Health insurance companies

Property owners' associations

Chambers of industry and commerce

Chambers of engineers

State Council for Building Regulations

Surveillance

Sociologists, psychotherapists, psychologists and behavioral consultants

Refugee-migrant organizations of people with disabilities (OPDs)

Organizations run by deaf people

Promoting policies that benefit children

Faith-based organizations and communities Health institutions (local, regional, national)

Nurses (practitioners, professional organizations, etc.)

Ambulatory care midwifery

Advocacy for patients

Children in care homes

Salvation Army, missions

Health and care providers Organizations and Associations (public and private services)

School services/parent-teacher associations

Medical care organizations

Community research and service centers

Amateur radio associations

Media (radio, TV, newspapers, magazines, etc.)

Social media

Food industry, nutrition logistics, transportation and distribution

Animals (zoo, pets, farm animals)

Consumer protection organizations

Auditors (public and private)

Legislators

Standardization organizations



The main capabilities we need to develop are:

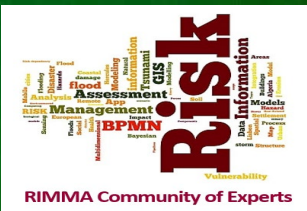
- **Descriptive analytics** that help us answer “What happened?” by evaluating historical data, for example to measure results or costs against targets.
- **Diagnostic analytics** to help us understand “Why did it happen?” through data discovery, data mining or correlation analysis.
- **Predictive analytics** that tries to give an answer to the question “What will happen?” based on historical data, statistical modelling and machine learning.
- **Prescriptive analytics**: analyses the best course of action given a certain scenario, incl. through machine learning.

United Nations Decade of Action: Data Strategy of the Secretary-General for Action by Everyone, Everywhere 2020-2022 <https://www.un.org/en/content/datastrategy/index.shtml>



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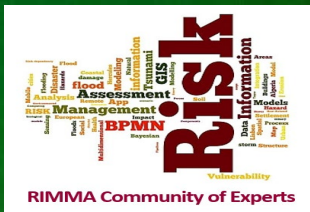
selected Challenges

- Big data, IoT, process models, AI, decision support, documentation
- From facts to situations
- From the visualization of complexity to the implementation of complexity
- Implementation of complexity on the basis of standards, scalability, traceability and technical and administrative coherence (with regard to regulations, rules, guidelines)
- Analysis of documented complexity (e.g. parliamentary committee of inquiry into the Ahr flood disaster)
- Data infrastructures for just-in-time support in the overall social sense (overcoming the research-practitioners gaps)
- National/European/global status of development, objectives, governance structures
- Personnel / human resources / education / curricula
- Legal framework
- Creating the **Common European RISK Information Space**



Towards a Comprehensive and Structured Approach

1. Creating a cross-sector governance structure
2. Understanding complex dependencies, resilience and vulnerabilities
3. Cross-Organizational common understanding of deficits, synergies, risks, resilience and vulnerabilities
4. Negotiate resilience goals that can be implemented and achieved
5. Prioritize measures across the entire life cycle of Critical Infrastructure and beyond
6. Ensuring accountability and monitoring the implementation of resilience measures
7. Consider the cross-border dimension of information infrastructure systems



Governance

- Office / Secretariat - Coordination / Communication / Cooperation / Documentation
- Committees
- Focus-/Working Groups
- (Technical) Drafting Teams
- Feasibility studies
- Prototypes / Testbeds
- Roadmaps for Objectives: 2 years, 5 years, 20 years
- National SENDAI Platform
- EU DG HOME, Directorate-General Migration and Home Affairs
DG ECHO, Directorate-General for European Civil Protection and Humanitarian Aid Operations
JRC, Directorate-General Joint Research Centre

