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IDIRA

INTEROPERABILITY OF DATA AND PROCEDURES IN
LARGE-SCALE MULTINATIONAL DISASTER RESPONSE ACTIONS





IDEA

A country is hit by a large-scale flood. Hundreds of square kilometres are affected by the destruction of infrastructure and housing. Thousands of persons need assistance concerning shelter, food, water/sanitation/hygiene, relief goods, basic health care and security.

In such situations, fire brigades and disaster response units from the affected country directly act together with international units, e.g. the Red Cross Emergency Response Units, fire brigades and technical relief units from various countries. Most of the acting organizations have their own structures for the coordination of their operating units in the field. They need to collaborate across technological systems, organizational borders as well as language and cultural barriers, but they do not have the same background knowledge and arrive at different points in time. The result is a loss of precious time and resources.

With the help of IDIRA, these borders and barriers can be overcome. The IDIRA system supports disaster response coordination between organizations, providing a set of guidelines and standard-based technical solutions for interoperability and data sharing between different systems. It enables a common, coherent decision-making process of all acting parties in order to save human lives and to minimize the total costs resulting from disastrous incidents.

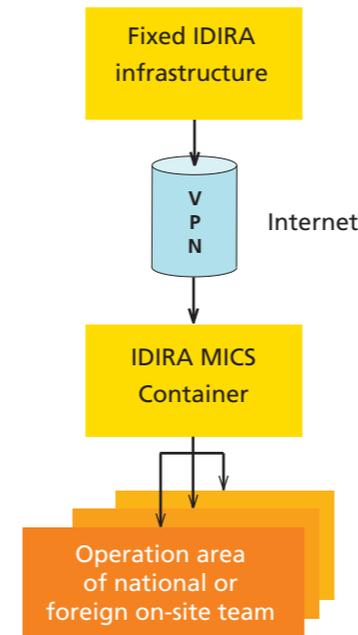
BENEFITS

IDIRA considerably improves the quality, speed and efficiency of decision-making. The system

- supports all stages of disaster management, including
 - preparation and prevention
 - early assessment
 - international help request
 - on-site cooperation
- integrates various available data sources and facilitates communication and information exchange between the different international responders
- implements European and international disaster management procedures and supports EU policies and Civil Protection Mechanism
- advances the state of the art in tools needed to support disaster response activities at strategic, tactical and operational level
- is easy to use and useful for handling daily operations, tactical decisions and strategic overview.

IDIRA CONCEPT

IDIRA provides a conceptual framework for supporting and augmenting regionally available emergency management capacities. This is achieved by means of a flexibly deployable Mobile Integrated Command and Control Structure (MICS) with capabilities for coordination in large-scale disaster management. Thereby, it is possible to establish a stand-alone network, independent from public communication infrastructure that might be destroyed.



REFERENCES

The Fraunhofer IVI has expertise and experience in the areas of

- Disposition systems for hazard prevention and disaster management
- Computer-based scenario analyses
- Business processes
- Modeling and optimization of logistical processes and infrastructures

These topics have been successfully implemented in several projects, such as

- »MobiKat«: securing mobility in major damage situations during catastrophic events
- »PrimAIR«: model for the innovative design of EMS in sparsely populated, structurally weak large-area regions
- »COSMOD«: Cross-Border System for Management and Optimization of Disaster Control and Crisis Management
- »Robust Dynamic Vehicle Routing«

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