Mountain Patrols Safe System for

Integrated Disaster Management System-

SKIPASS

Best Practices

Integrated Disaster Management System,

SWOT Analysis

REPORT

Project: **Mountain Patrols Safe System for Integrated Disaster Management System - SKIPASS**

European Programme: **Civil Protection Financial Instrument Project Proposals,** *Section A*, PREVENTION projects

Priority Objective 2: Linking the relevant actors and policies throughout the disaster management cycle

Target: To make a review of the activities related to Task C and produce an integrated and comprehensive SWOT Analysis on the basis of a set of presentations of the Best Practices, country IDMS SWOT analysis and other supporting information related to the IDMS.

Project Partners

1. CENTRO PROCIV, Veneto Regional Centre for Civil Protection Training in Forsee and Prevention, Italy
2. ADEP Patrias – Municipality, Greece
3. Regional Administration Smolyan, Bulgaria
4. Lake Balaton Development Coordination Agency, Hungary

http://www.civilprotectionskipass.eu/

Disclaimer: Any views and opinions presented in the current Reports are solely those of the authors, and they do not necessarily represent the official position of the Civil Protection Institutions/governmental bodies.

TABLE OF CONTENTS

1. INTRODUCTION 6

2. GENERAL INFORMATION 7

3. BEST PRACTICE ON INTEGRATED DISASTER MANAGEMENT SYSTEM 8

BULGARIAN BEST PRACTICE 9
GREEK BEST PRACTICE 28
HUNGARIAN BEST PRACTICE 34
ITALIAN BEST PRACTICE 51

4. SWOT ANALYSIS 61

5. DATABASE – GENERAL MATTERS AND STRUCTURE 85

6. APPENDIX 86

STRUCTURE OF BEST PRACTICE 87
STRUCTURE OF SWOT ANALYSIS 90
OTHER BEST PRACTICE 96
LITERATURE AND INTERNET RESOURCES 116

List of Acronyms

BP	Best practice
CMS	Crisis Management System
CSM	Center for Space Monitoring
CONOP	Concept of Operation
COP	Common Operational (or Operating) Picture
CCC	Civil Contingencies Committee/Committee on Civil Contingencies
CRO	Crisis Response Operation
CECIS	Common Emergency and Information System
DB	Data Base
DDPS	Swiss Department of Defence, Civil Protection and Sport
DTED	Digital Terrain Elevation Data
EADRU	Euro-Atlantic Disaster Response Unit
EAPC	Euro-Atlantic Partnership Council
ECC	Emergency Communications Center
ECR	Emergency Control Room
EOC	Emergency Operations Center
ESDP	European Security and Defence Policy
ERC	Emergency Response Cell
EU	European Union
FEDEP	FEderation Development and Execution Process
FOC	Full Operational Capability
GIS	Geographic (or Geo-spatial) Information Systems
HLA	High Level Architecture
HQ	Head Quarters
HW	Hardware
IOC	Initial Operational Capability
ISR	Intelligence, Surveillance and Reconnaissance
IDMS	Integrated Disaster Management System
IRS	Unified Rescue System
IT	Information Technology
Kg	Kilograms
Km	Kilometers
LASD	Local Automated System for Disclosure
LGD	Lead Government Department
LEMA	Local Emergency Management Authority
m	Meters
m/s	Meters per second
M&S	Modeling & Simulation
MDA	Model Driven Architecture
MIC	Monitoring and Information Centre
NATO	North Atlantic Treaty Organization
NIAG	NATO Industry Advisory Group
NECS 112	National Emergency Call System
NECS and SEECN 112	National Emergency Call System and SEECN 112
NEWSDD	National Early Warning System and Disaster Disclosure
NMSG	NATO Modeling and Simulation Group
OASIS	Organization for the Advancement of Structured Information Standards

OCIC	Operational Communication and Information Center
OMT	Object Model Template
OO	Object Oriented
PC	Personal Computer
PDA	Personal Digital Assistant
PDO	Potentially Dangerous Object
RERA	Rescue and Emergency Recovery Activities
PfP	Partnership for Peace
PSO	Peace Support Operation
Q-AI	Quasi Artificial Intelligence
RTI	Run Time Infrastructure
RS	Rescue Service
RTO	Research & Technology Organization
SA	Situation Awareness
SAR	Search And Rescue
SOA	Service Oriented Architectures
SOAP	Simple Object Access Protocol
STANAG	Standardization Agreement
SW	Software
TCP/IP	Transmission Control Protocol/Internet Protocol
TM	Time Management
TSO	Tactic Situation Object
UAD	Disaster Support Units
UME	Emergency Military Unit
UML	Unified (or Universal) Modeling Language
UNOCHA	United Nations Offce for the Coordination of Humanitarian Affairs
VMAP	Vector Map
WSDL	Web Services Description Language
XML	eXtensible Mark-up Language

1. INTRODUCTION

The huge variety of organizational concepts of the systems for population protection from disasters, accidents and catastrophes in the different countries, pose a lot of questions related to the improvement of the efficiency and coordination that could benefit from the good and effective practices and produce a common, integrated and comprehensive European view and concept for the crisis/emergency management.

This issue is getting more and more important and from the fact that large-scale calamities or disasters are already covering the territories of several countries or because of their magnitude and consequences that require the assistance and cooperation of international bodies working in the sphere of civil protection.

The overall policy development within the EU supports further the activities in this area and thus is leading to a greater efficiency and better coordination and interaction. The growing importance of this policy is becoming evident not only within the EU, but in any place affected by large-scale disasters and catastrophes.

Apart of this, the improvement of the civil protection structures' work in any country is a process that works at various management levels and operational models. An important element of the improvement of the civil protection in the individual countries and of their coordination in joint activities is the improvement of the existing Integrated Disaster Management System (IDMS) or, if there is no any, the implementation of such a system based on current best practices.

This study aims to present important aspects of existing IDMS or of some elements or practices leading to the establishment of such integrated systems. Taking into consideration the variety of models in the different countries, their different legal acts and structures, we have drafted our presentation in a format that makes comparison. Our study does not claim to encompass all aspects of the problem, or to offer solutions or analyses that can be applicable to any situation that may arise.

The included database allows accumulating of additional information for the study and improvement within the framework of the project and after its completion the participants' knowledge and experience about IDMS.

The overall process of coordination involved active communication with the stakeholders and further development of the initial ideas. The developed SWOT analysis was centered upon specific abilities, thus leading to better results. So, the objective is to try to find solutions to some specific problems through a prototype of IDMS.

2. GENERAL INFORMATION

Title of the project	**Mountain Patrols Safe System for Integrated Disaster Management System**
Acronym	**SKIPASS**
Leader partner	CENTRO PROCIV, Veneto Regional Centre for Civil Protection Training in Forsee and Prevention;
European Programme	**Civil Protection FINANCIAL INSTRUMENT PROJECT PROPOSALS Section A, PREVENTION projects** **Priority Objective 2:** Linking the relevant actors and policies throughout the disaster management cycle
Project duration	21 months (01 October 2010 – 30 June 2012)
Partners	PP2 - ADEP Patras – Municipality, Greece
	PP3 – Regional Administration Smolyan, Bulgaria
	PP4 – Lake Balaton Development Coordination Agency, Hungary

Project description

The main task of this project is to build up capacities among the Civil Protection groups to deal with the mountain environment challenges during the whole year (including the winter season) in mountain areas, and with specific focus on building a learning organisation structure where the daily operations of Civil Protection in non-disaster situations is linked to the vital role of Civil Protection in disaster prevention and preparedness for major emergency situations in mountain areas.

Objectives

Overall objective:

To build Civil Protection capacity in direction of an integrated vision of mountain environment risk prevention and management (Integrated Disaster Management System)

Specific objective:

To build up a "Winter policy and procedure framework", through training and knowledge transfer between partners, for Civil Protection bodies for the implementation of an Integrated Disaster Management System

Expected results

1. Creation of dedicated guidelines for Civil Protection Volunteers (procedures)
2. Training of C.P. Volunteers on rescue operations and procedures
3. Implementation and evaluation of Integrated Disaster Management System /IDMS/ ("Integrated" refers to three aspects: a) integration across the disaster management cycle; b) Integration of learning processes between daily non-disaster related Civil Protection tasks and disaster related tasks; c) Integration of all relevant stakeholders in the disaster reduction/ prevention).

3. BEST PRACTICE INTEGRATED DISASTER MANAGEMENT SYSTEM

The Chapter describes the Best Practices, provided by the Partners, using the agreed template (Annex 1). The objective is to compare the results, in view of the various specific features, the different legal acts and mechanisms, as well as in view of the various types of organizations working in the sphere of civil protection from disasters, accidents and catastrophes in different countries.

Besides, the template was used to describe the Best Practices related to the Integrated Disaster Management System (IDMS) or important elements for the IDMS, now available in the Database. Moreover, good examples are given to illustrate the Best Practices of other countries.

BULGARIAN BEST PRACTICE

Task C

Partner: Regional Administration Smolyan, Bulgaria

Responsible Person: Dipl. Eng. Momchil Karaivanov

Expert: Dipl. Eng. Dimitar Kalaydzhiev

BEST PRACTICE
IDMS Local Description Form

I. INTRODUCTION

1.1 Territorial level

SMOLYAN REGION

1.2 Description of context

CHARACTERISTIC OF THE SMOLYAN REGION

Description of the district of Smolyan:

The district of Smolyan is located in Southern Bulgaria, in the middle of the Rhodope Mountains, on a territory of 3194.7 km^2.

Large part of the territory is located with forests – 2108 000 decares (66%) and the agricultural lands cover 853 000 dca (27%).

The altitude of the district is between 600 and 2191 m. The highest peak is Perelik (2191 m).

There are 10 municipalities in Smolyan region with 242 settlements, 8 of which are towns. The largest municipality is Smolyan with population of 40995 and the smallest is Borino with population of 3627.

On 01.02.2011 the population of the region is 120 567, 66 102 of them live in the towns and 54 465 people live in the villages.

The region is thinly populated, except the bigger towns, where the population is more concentrated. There are some deserted villages. The density of the population is 37.8 per square kilometer.

3. Legal framework

LEGAL BASE

The legal system in Bulgaria is governed by several laws and regulations for their implementation, published in "Official Gazette". Among them most important are:

- Constitution of Bulgaria (1991);
- Ministry of the Interior (from 01.05.2006 and subsequent amendments);
- Rules for the Implementation of the Ministry of Interior;
- Law on Disaster Protection (from 19.12.2006 and its amendments);
- Electronic Communications Act (2007).
- Decree № 192 / 08.09.2007 on the implementation of NECS to 112

II. DESCRIPTION OF IDMS

Information Technology

Crisis management depends on timely, reliable, secure and comprehensive management of information sources, flows and users, as well as the wealth and the degree of freedom to access and use of information.

Special care is needed for protection and security of the information. There are varity of types and functions of the informational resources depending on computer and communication options:

- **The means of collecting information** are different devices and programs for retrieval of information, there are developed different standards and languages for their creation.
- **The means of presenting information** play a crucial role in the reconstruction of a sufficiently clear and appropriate environment for assessment of the situation, decision making, choice of the operation and management of its implementation.
- **The means for archiving** cover various types of backup devices and programs.
- **Means of control and protection** most often are integrated into various work schemes as tools for analysis and control of the state of a system.
- **Means of communication** are those that provide physical, programmatic, logical connections between components.

Tools for Crisis Management

Key features of the crisis are: complexity, unique character, impact on many elements of the environment, development speed, high unpredictability and high risk.

Crisis management is based on an integrated, process-oriented, centralized approach.

The elements include:

- Providing timely and accurate information on the nature and extent of situation;
- Information about the status of available resources;
- Consolidation of information;
- Coordination of the structures at national level;
- Coordination of actions at the level of crises having cross-border type;
- Providing communication.

The stages are: monitoring, hazard identification, management and control of the crisis and final action.

III. CRISIS MANAGEMENT

The crisis management system provides the actions for managing and dealing with the crisis in the region of Smolyan. The crisis management system includes:

1. Management centers;
2. Communication and Information System;
3. Forces for crisis response.

The crisis management system provides: (a) Analysis and assessment of the risk of

crises; (b) Maintaining preparedness for crisis; (c) Information exchange; (d) Effective use of available resources; (e) Coordination of the forces for crisis response while maintaining the organizational affiliation.

Information program for risk assessment of potentially dangerous objects.

Law on Disaster Protection provides a definition of „Potentially dangerous object" (PDO), but essential to the risk assessment is the existence of a common methodology.

An essential part of preventive activities is the preparation of expert risk assessment, as essential is making accurate analysis, evaluation and prediction of risk for potentially dangerous objects.

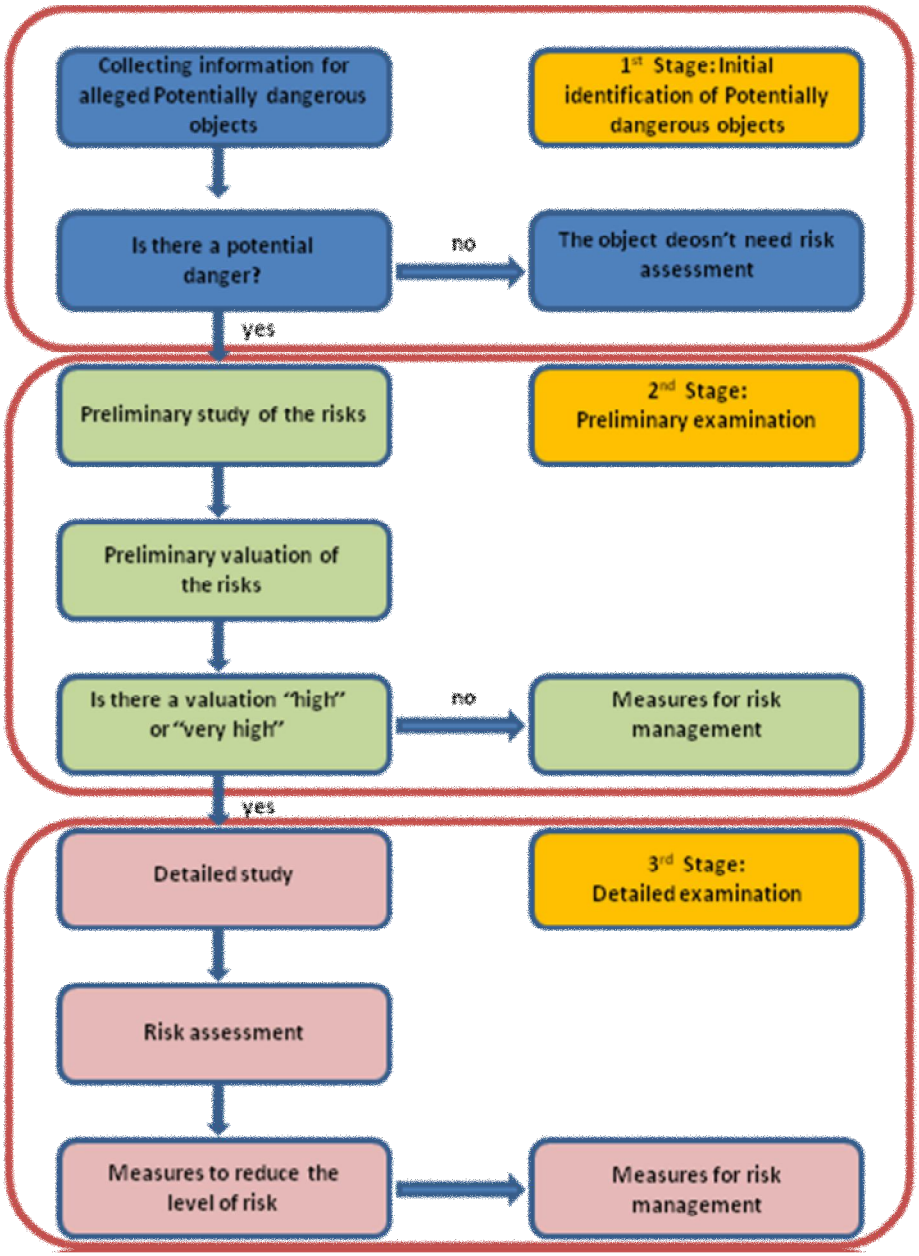
An uniform methodology is accepted to be used expert reports by contracting authorities . Main event, part of prevention, is the categorization of the field depending on the risks of disasters.

A programming framework for methodological research is created for analysis, evaluation, and prediction of risk for potentially dangerous objects, as well as a guidance on the essential requirements for length and content of the expert reports. The methodological framework includes the following stages:

- Initial identification of potentially dangerous sites;

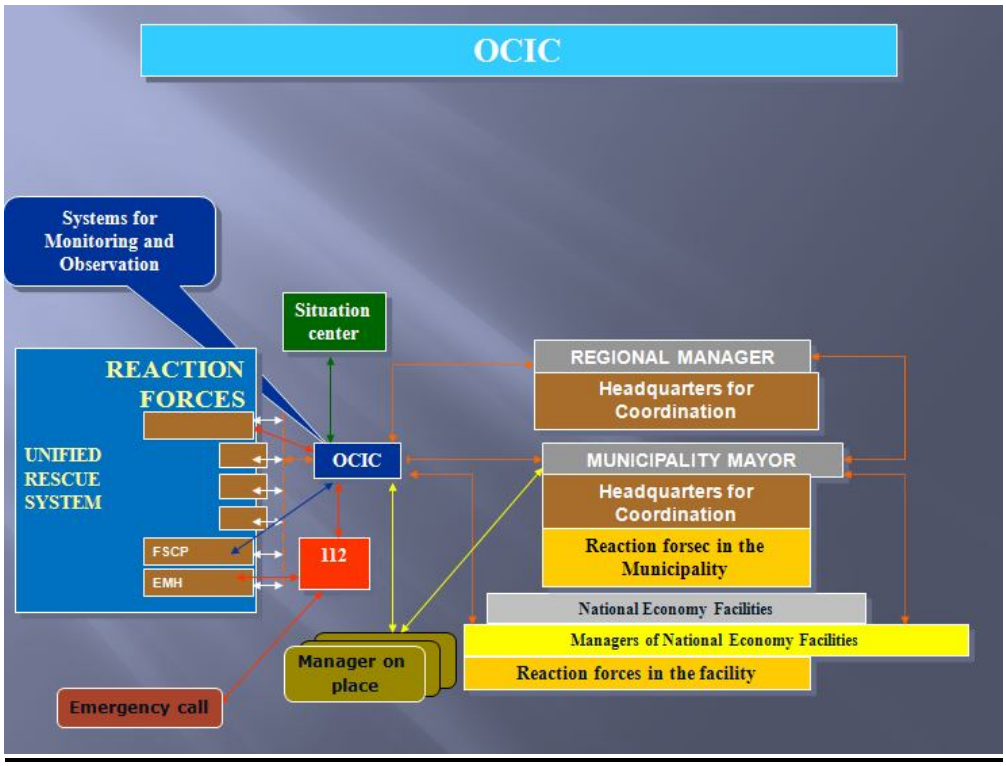
- Preliminary examination;

- Detailed examination, including a program to reduce injury and expert valuation of activities to reduce damage.



IV. OFFICE (Call center)

TASKS AND ORGANIZATION OF OCIC
(Operational Communication and Information Center)



A) TASKS OF OCIC

- Coordination of the components of the Integrated Rescue System (IRS);

  1. Municipalities and agencies;
  2. Companies and sole traders;
  3. Centers for emergency medical care, hospitals;
  4. Entities with non-profit aim;
  5. Armed Forces.

Note: *Units, offices and other structures are components of IRS while maintaining the institutional or organizational affiliation and their designated functions or business activity.*

- Accept and assess information about disasters;

- Notify the competent components of the single rescue system and coordinate further activities on the basis of **standard operating procedures**;
- Inform the authorities of executive power for disasters occurring;
- Includes additional forces and resources of the components of IRS, under the plan for conducting Rescue and Emergency Recovery Activities (RERA) at the request of the head spot, the mayor or governor;
- Recording and archiving with subsequent playback of received and transmitted voice information OCIC.

B) OPERATIONAL ACTIVITIES OF OCIC

- Provides constant readiness to receive messages on occurring disasters, their evaluation and immediate action in accordance with established operating procedures.
- Notify the competent parts of the Unify rescue system and coordinate further operations in the conduct of RERA, according to established operating procedures.
- Notify the executive authorities in the area in case of threat or occurrence of disasters in state of war under martial law or emergency.
- Performs disclosure controls and reaction forces on alignment ready for work in the protection of the population in case of threat or occurrence of disasters in state of war, emergency and organize the implementation of planned activities. Coordinate activities and interaction of controls and reaction forces in the area of responsibility.
- In order, brings controls and response forces in areas of responsibility in other areas of assistance.
- Maintain regular contact with manager on site and assist him in matters of cooperation and coordination between the parts of the Unite rescue system involved in RERA in the disaster area - the "place of interference".
- Includes additional forces and resources and other key components of the single rescue system under the plan for conducting RERA, at the request of the head spot, the mayor or governor.
- Sends a timely manner in "Situational Centre" copy of the orders announced / withdrawn "distress" in the region and/or the municipalities in the area. In the case of fires, epidemics or epizootics place interaction and information exchange with the local structures associated with disaster.
- Provides reception activities, summarizing and processing of information obtained in the process of implementation of activities in the protection of the population in case of threat or occurrence of disasters; recording and put logs in the report, its archiving paper and magnetic media and providing the intended.
- Maintain data in the statistical database on emerging disasters, accidents and catastrophes in the region.
- Provides continuous monitoring, analysis and assessment of the specific situation and inform the leadership of the management situation.
- Prepares "Daily Newsletter" for the situation in the field that is directly responsible for its authenticity and send it in the precise time to "Situation Centre" as well as to other recipients, according to an approved list.
- Provides comprehensive exchange of information "OCIC" in the necessary amount and time specified in the said information units.
- Observe the automated monitoring systems.
- Upon receiving information and dangerous phenomena from territorial structures of the state bodies, organizations and entities with functions disaster protection,

immediately provide the same in the Situation Centre shall promptly inform the authority of the area and prepare a written warning, according to the instructions.

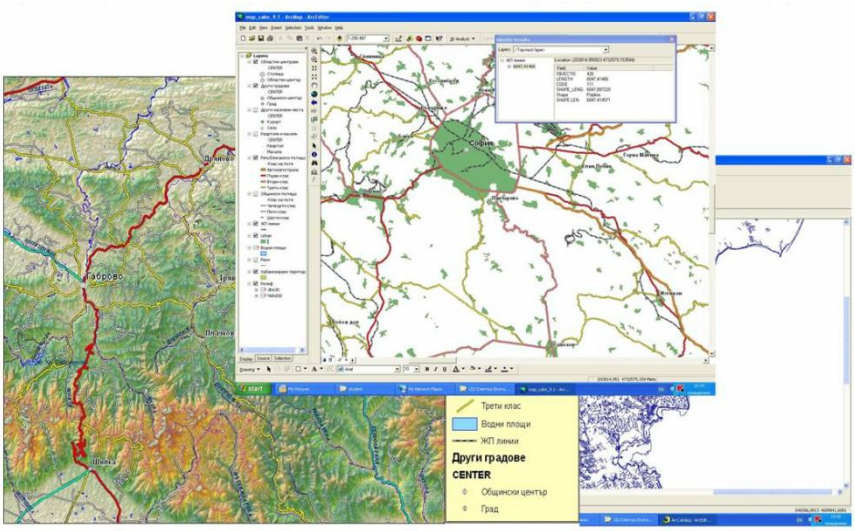
- Daily collects data and prepare summary information about the level of background radiation in the region and send it to the Situation Center.
- Assists management information area for managing the forces and means for: operations in search and rescue operations to protect the population, humanitarian operations, emergency rescue, as well as other operations other than war.
- Participate in the preparation of newsletters, periodic information reports and analysis reports on the situation in the region and is directly responsible for their reliability.
- Participate in conducting training and exercises at the district level to ensure the management in case of threat or occurrence of disasters and regarding interaction and coordination between the parts of the unite rescue system involved in RERA.
- Conducted training on disclosure of executive authorities and the constituent parts of the unite rescue system in the region.

C) ORGANIZATION of OCIC

- ***Systems for monitoring and surveillance***

a. Center for Space Monitoring (CSM)

It helps the process of risk management for natural (anthropogenic) disasters in areas. CSM has a detailed set of data and physical parameters giving information about the current state of the atmosphere, land and water surface.



The **Center for Space Monitoring** has:

Two reception stations for receiving and processing satellite data in real time. Ground stations receive data from 4 weather satellites of NOAA,(Polar Orbiting Meteorological Satellite Series - USA), the Chinese satellite Feng-Yun-1 and satellites for the Study of Earth, NASA Terra and Aqua. Data from meteorological satellites have a resolution of 1000 meters; the average interval of receiving the satellite images is about 90 minute.

Data from NASA satellites have a resolution of 250, 500 and 1000 meters and receive four times in 24 hours - 2 times around noon and twice around midnight. Satellite data is received 24 hours.

The review of facilities from which CSM receives data is about 2300 km., which means that unless the country's territory, perimeter of the received data includes satellite images at different

times of the receipt showing areas from the Atlantic to the Middle East and North Africa to Scandinavia.

Video surveillance system in real time, which can be mounted on unmanned aircraft or another aircraft or vehicle, the signal is transmitted in real time in telecommunication satellites Inmarsat. The system is equipped with GPS.

A system is installed for modeling past and future floods (MIKE 11), allowing the hydro solutions in water resources management, assessment and analysis of floods. The system is not working before providing the necessary input.

The center has installed a software system for locating fires based on satellite data in near real time. A system is implemented for hydrodynamic modeling of water flows. A methodology is developed for estimating the probable precipitation based on data from meteorological satellites.

Data from CSM can be used both for making different types of evaluations, analysis and forecasting analysis related to natural disasters, and for analysis in the field of hydrology, meteorology, climatology, ocean science, ecology, agriculture, anthropogenic pollution of water and atmosphere, transport, infrastructure, etc.

CSM prepare daily newsletter, which through the built Regional Communication and Information centers are given to regional and local level.

b. Local Automated System for Disclosure (LASD)

The system for dynamic monitoring of water levels in the control points of the Smolyan region, was developed and implemented on a project of the Regional Governor of Smolyan, named RIMADIMA, program INTERREG III B - CADSES, funded by the European Union. RIMADIMA aimed to prepare an overall concept of a "system of decision" as a means to improve the process of making decisions, planning department and the Centers for crisis management ". This leaded to interaction between planning and intervention in crisis situations. The structure of concept and demo - version of the ODA software is adaptable for all kinds of risks for each region of the CADSES area. The system is an important element of the overall field of IDMS.

Main components:

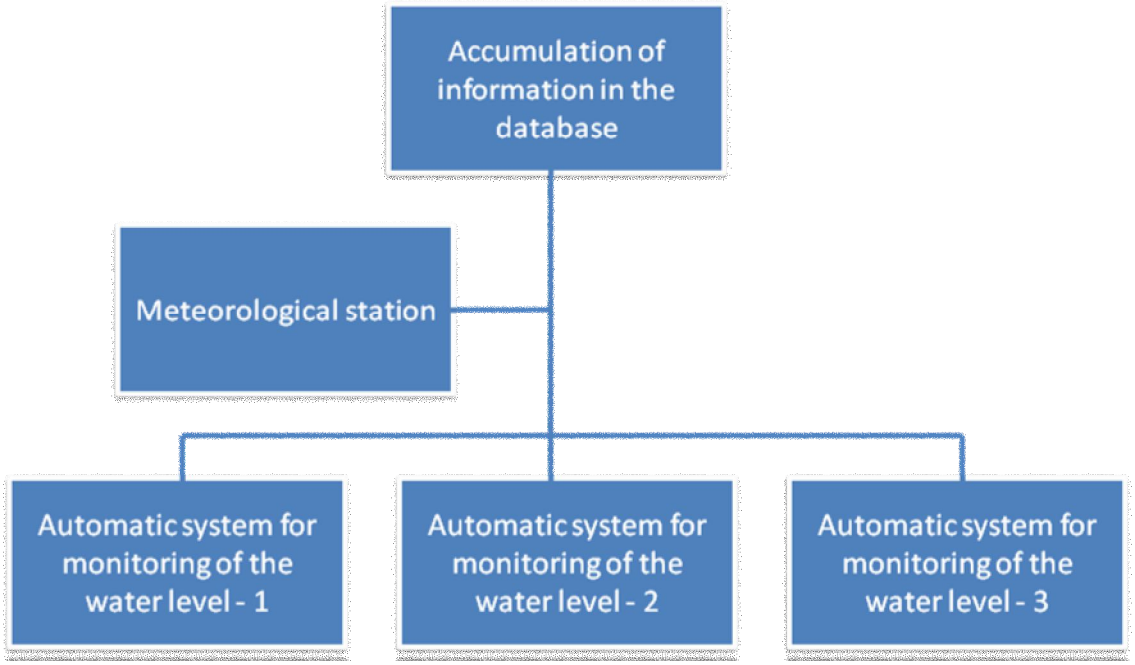
- One meteorological station;
- 3 control system for monitoring and reporting water levels in watercourses;
- Accumulation of information in a database in dedicated server and generate announcing sms-ported to set levels of water quantity.

The system monitors the level of water quantity in the points and send information to the database.

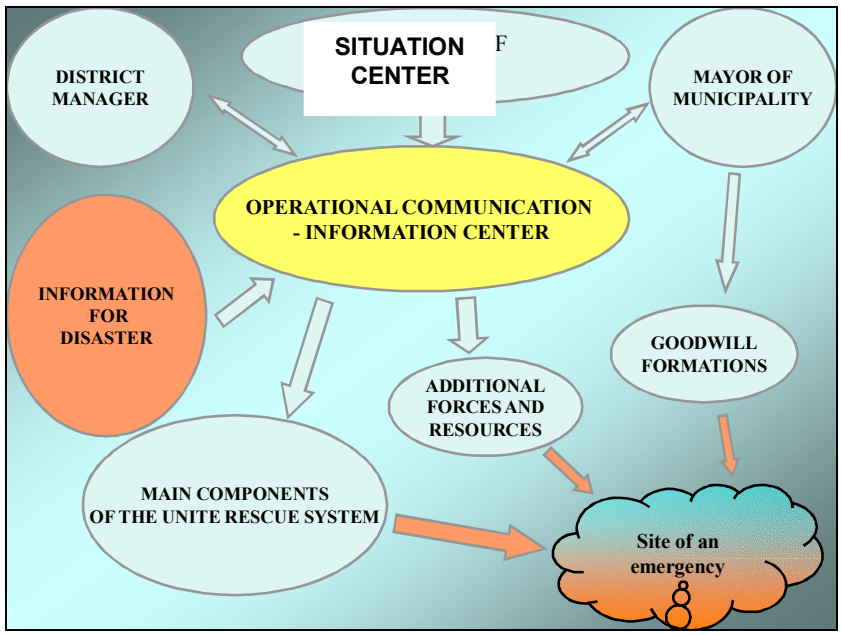
In case of passing the set thresholds it automatically sends sms-announcing, which is part of the overall field of IDMS. Information from meteorological station allows a preliminary analysis of information and support assessment of the situation.

The system is equipped with battery power, allowing autonomous operation.

Automatic system for monitoring the water levels and announcements in cases of critical levels in Control division in the Smolyan region

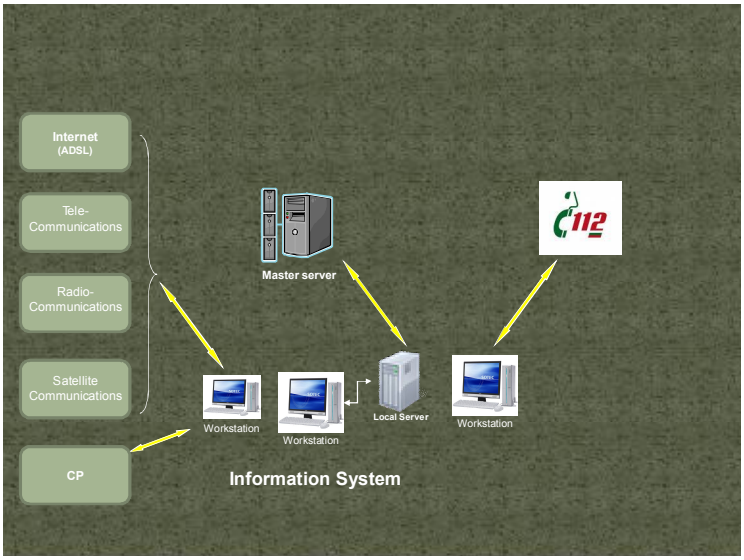


- Receive emergency alerts or warnings in OCIC.



- From National Emergency Call System 112 (NECS 112)
- From Rescue Service (RS)
- From objects of national economy
- From citizens

4.COMMUNICATION AND INFORMATION CONNECTION OF OCIC



A. The communication subsystems of OCIC – serve for:

1. Handles telephone calls from the networks of undertakings providing electronic communications;

2. Exchanges data at speeds sufficient for the proper functioning of the different information communication subsystems;

3. Integrates classic analog and digital telephony with VoIP;

4. Maintains: digital (ISDN) and analog telephone lines to the public electronic communications networks, electronic communications networks for their own needs to fixed subscribers; separate channels to companies providing mobile telephone service, lines and channels for connection to other communication systems;

5. Provides an opportunity to build secure virtual private network (IPSec VPN) communication systems of different manufacturers;

6. Provides standard interfaces to implement a secure and redundant communications for all other subsystems;

7. Provides a thorough consultation and transparency with other subsystems, using a common numbering plan.

Types of communication used:

1. Voice services and other fixed network:

- the network of BTC telephone, fax, leased lines, ISDN, VPN, planned lines / channels Disaster / RERA;

- PBX in regional administration;

- own telephone exchange, including IP digital.

2. Internet – ADSL;

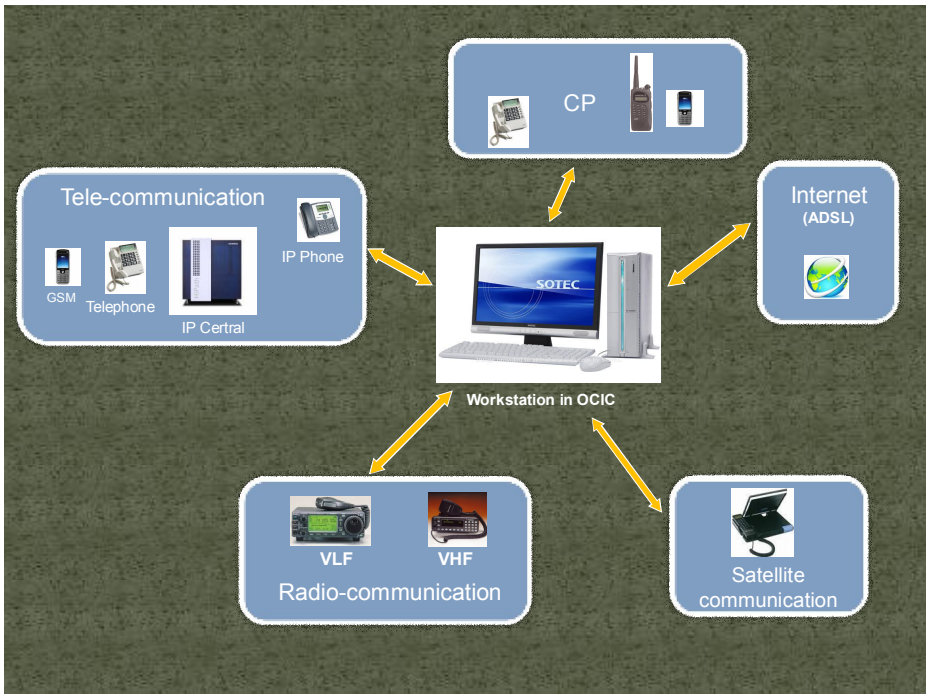
3. Mobile Communications;

4. Satellite Communications – VSAT, mini-M - Inmarsat;

5. Radio communications:

- VLF radio communications;
- VHF, UHF radio comunications - fixed, mobile;

Communication connectivity of OCIC.



B. Information subsystem in OCIC – serve for:

1. Registration of input and output signal processing in case of emergency (disaster, emergency, disaster warning, etc.). and when conducting RERA;

2. Recording actions taken by the operating duty of the time the emergency signal is received until the activities of its processing and / or completion of RERA;

3. Scenarios to deal with various emergencies;

4. Maintaining a database of all registered signals for emergency incl. false, all actual incidents (events) and all managed RERA;

5. Integrated geographical information system (GIS), with the possibility for the operator of information in accordance with the needs;

6. Support vector and raster maps, symbols and texts on the cards;

7. Integration with a GPS system for monitoring, control, observation of the location of the reaction forces;

8. Provides an opportunity to generate a wide range of reports and statistical analysis;

9. Integration and compatibility with existing information systems: National Emergency Call System and SEECN 112 (NECS and SEECN 112), Center for Space Monitoring (CSM), National Early Warning System and Disaster Disclosure (NEWSDD);

10. Providing a high level of security.

Types of information systems:

A) NATIONAL EARLY WARNING SYSTEM AND DISASTER DISCLOSURE (NEWSDD);

- Early warning and alert of the authorities of executive power and the components of the unite rescue system.

The early warning system of the executive and the components of a unite rescue system is intended for individual notice and disclosure, depending on:

1. The type and scale of the disaster;

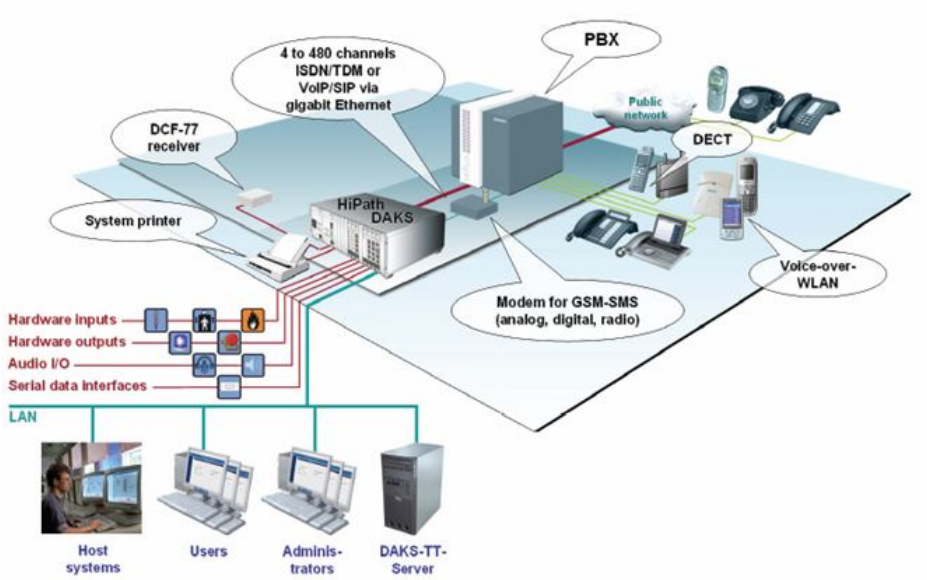
2. The powers of the executive authorities of different levels of government;

3. Competence of officials in the administrations of the executive authorities;

4. Specific function or activity of components of the Integrated Rescue System.

The early warning and alert the authorities of the executive and the components of a single rescue system operates through a database introduced, allocated to approved schemes in light of the purpose of the system includes the disclosure groups, officials for the disclosure in groups and priorities for disclosure.

Executive authorities and heads of the components of a single rescue system included in the disclosure groups are required to provide and update the Staff of the underlying structures involved in the groups to disclose.



Key features of the system for individual disclosure:

Distribution - Fast information
Alert - Quick mobilization
"Info Phone" - Delivering of concrete information to many users
Conferences - Solutions for crews
Emergency conferences - Skilled help
Group calls - Instant connection with a specialist
Personal calls - Instant access to every user in the network through unique (private) number

Function "Distribution / Alarming"

Alarm of a subscriber or a large group of subscribers via telephone or pager.
Deployment of rescue teams from fire, medical or other emergency services.
Individual plans for evacuation of different types of buildings (eg hotels, shops) in case of fire or other accident.
Simultaneously informing the police, hospitals, schools, newspapers and other.
Exchange of information between head office and departments.
Call service engineer, medical professionals, etc.
Quickly and reliably disseminate critical information with minimal time.

Alert - Emergency Mobilization

Exposed persons
Rescue services
Security services
Civil engineers
Employees off-site

List of users and administration of the messages

List of subscribers

- Up to 1000 users
- Personal and professional information such as: name, department, location ...

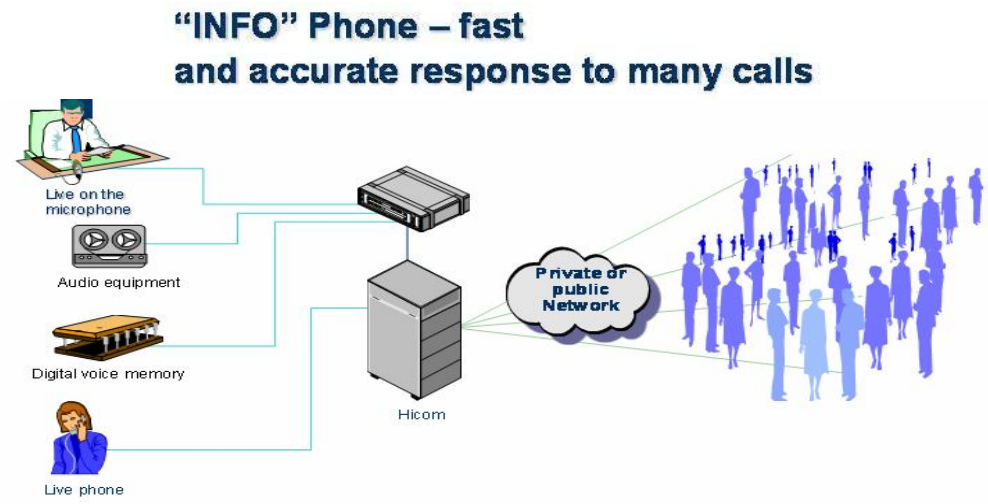
Administration of messages for all applications

- Set, change and delete messages and check the status
- Support for Instant Messaging

Protection of certain messages against modification or deletion

„Info Phone"

- You call to get information;
- Reproduction of Communications and Live transmission;
- Date information in case of emergency, made for the citizens, as well as for the special services;
- Information for the environmental and traffic, for example congestion, weather conditions etc.;
- Various information services for organized events.



"INFO" Phone characteristics

- All messages are played back immediately and again.
- Select a message or audio sources for playback:
  - Or by the last 1 to 4 digits of phone number
  - Or via DTMF during talks (with informal notice)
- 20 different messages can be transmitted via existing channels (60 in number).
- There are 20 different programs simultaneously.
- The fast switching allows IT departments to obtain the necessary information in the case

Function Telephone Conference

Starting a phone conference

- simple, selective and immediately
- support via PC, phone or other hardware

Solving the problem through communication

- between emergency workers in distress
- between those who need assistance and assisting
- between headquarters and departments
- between editors and others in the team
- in many other fields of activity

Special features supported by the operator conference
Manage up to 8 conferences simultaneously via PC

- Initiation and control of conference
- Giving or withdraw the word of a participant
- Add or exclusion of a participant in the conference
- Fast connection to conference
- Transfer of participants between the currently active conferences
- Ease of arranging a PC window
- Instant selection and connection with client

- Early warning and alert of the population

The early warning system is designed for both warning and disclosure of large groups of people of certain territory or of impending disaster occurred and the transmission of instructions for the necessary measures and actions through acoustic signals and voice information.

- It is a decentralized network of open- type with distribution resources, enabling parallel processing of the information;
- Allows to grow vertically and horizontally on the hierarchical levels of management;

Allows integration of existing departmental, regional and municipal sub-systems.

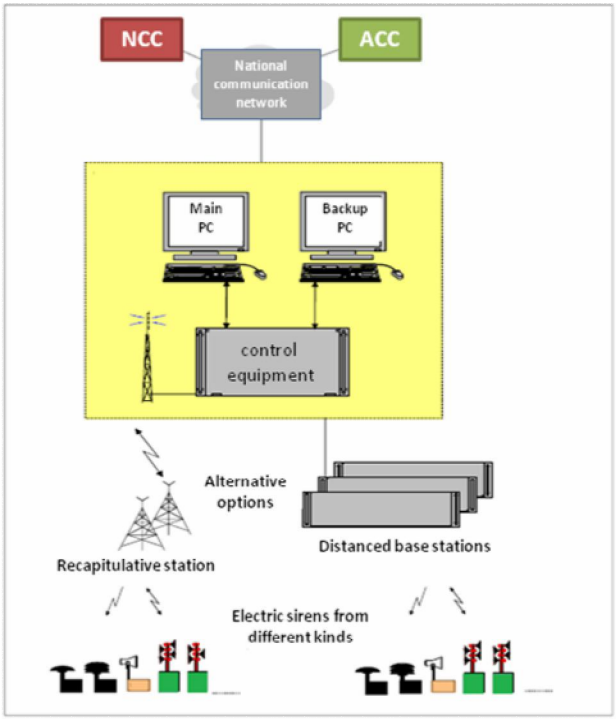
The system consists of:

- Control Center (CC)
- Relevant number of electronic sirens with different acoustic power
- VHF radio communications network
- Repeater on the radio - if it is necessary to cover the territory

Regional Control Center includes:

- A work station and control panel, which has a work desk, the two units operate in parallel and serve as backup to each other;
- Software activation, control and surveillance of the entire system on a map-based graphical user interface;
- Able to activate using the keyboard and LCD-display control panel;
- Electronic components are located in room equipment

National System for Early Warning and Disaster Disclosure (NEWSDD)



War-time concerns:

Signals for disclosure of the population:

ALARM 1 - Air-raid;
ALARM 2 - Retreat;

Peace-time concerns:

ALARM 3 - Risk of radioactive contamination;
ALARM 4 - Threat of chemical and bacteriological contamination;
ALARM 5 - Danger of flooding;
ALARM 6 - Increasing the degree of readiness to protect the population;
ALARM 7 - Another danger, typical of the area (landslides, etc.).
ALARM 8 - Command control system and internal information;
ALARM 9 - Testing;
ALARM 10 - Replacement;

B) SUBSYSTEM RESCUE AND EMERGENCY RECOVERY ACTIVITIES (RERA)

The system has built-in generator of reports and RERA plan based on input data for individual organizations. The RERA plan is generated based on the legal requirements laid down in law. Generation of the plan RERA can be done and in separate parts depending on which data have been updated. Login in the system.

1. Editor 'DISASTER'
2. Editor 'ACTIONS'
3. Editor ' MUNICIPALITY '
4. Editor 'HEADQUARTERS'
5. Editor TYPES OF TECHNICS
6. Files and documents
7. Editor "ORGANIZATIONS"
8. Generator of reports and plan RERA
9. History of working with the system
10. Searching

C) GPS SUBSYSTEM

1. Operational control, monitoring and control of rescue teams of the Police;

2. Early interaction of the operator with the cars and the teams of the Police by monitoring the traffic in real time in Bulgaria, if necessary – outside the country;

3. Transmission of information, warnings and other messages to help teams to work efficiently with increased security;

4. Centralization of operational activities of mobile teams for the effective allocation of the resources.

D) VIDEO SURVEILLANCE SUBSYSTEM

1. Visual control of mobile and stationary objects;

2. Opportunity to properly assess the situation with a view to taking appropriate action on process management;

3. Introducing video archive and reviewing the necessary fragments of emergency response in order to further analyze the actions of staff and additional measures to increase efficiency.

E) VIDE SUBSYSTEM

1. To exchange data and transmit video and audio information from the locations of operational work to jobs of different managers;

2. Opportunity to display the locations of occurrence of disasters or accidents;

3. Information necessary for the operation of headquarters for coordination;

4. Opportunity for further exploitation of the work of rescue teams and staffs to coordinate in order to analyze and evaluate.

V. FORCES FOR CRISIS RESPONSE

- IRS
- Municipalities
- Attracting companies and equipment from the local area.

VI. TRAINING IN IDMS

Conducted a standard type of training.

VII. CONCLUSION

To achieve better results is essential to improve coordination and the most efficient use of existing knowledge and the experience of the people, most effective use of resources of the region, their improvement, more active participation of other organizations to support public administration in building a unified intergrated system of emergency management for further improvement of prevention activities, lowering the potential risk and achieve effective management in case of crisis situations in individual municipalities or for the whole region.

GREEK BEST PRACTICE

Task C

Partner: Patras Municipal Enterprise for Local Development (ADEP S.A.)

Responsible Person: Konstadinos Konstadakopoulos

BEST PRACTICE
IDMS Local Description Form

I. Introduction

1. Characteristic of the region
   1.1 Territorial level
   national*: Greece*
   1.1 Description of context

General Secreteriat of Civil Protection.

The GSCP belongs to the Ministry of Interior. It is the Hellenic competent authority for the planning and set-up of the national policy and actions in matters of prevention, preparation, public information, management and mitigation of natural, technological and other major hazards.

The main areas of activity of GSCP include:

- Readiness of the personnel and means of Civil Protection.
- Elaboration of the available scientific information for the mobilization of resources in case of emergencies.
- Coordination of response and recovery actions in emergencies.
- Coordination of emergency planning actions at national level.
- Cooperation with the competent authorities towards preparing regulations, codes and legislation in the field of prevention.
- Programming, based on the annual national civil protection planning, of the necessary annual provisions of means and human resources in cooperation with competent authorities.
- Monitoring and control of the Annual National Planning implementation at regional and local level in cooperation with competent authorities.
- Coordinate the distribution of State funds for CP to the local authorities.
- Preparation of special reports for every major disaster. Revisions, amendment and improvement of existing planning proposals are included.
- Operate a Civil Protection Operation Center on a 24 hours basis.
- Assessment of information on weather forecasting and other precursory phenomena related with natural hazards, for the early notification and warning of the competent authorities and the general public.
- Public information and awareness.
- Organization and promotion of volunteer organizations work in the field of CP.

- Support and promotion of the research, education and training in the field of CP.
- Promotion of the country's relations with International Organizations and CP authorities, including representation in International Organizations.
- Coordination of the assistance provided to Greece and assistance provided to other countries.

The organisational chart of the GSCP is the following



2. Civil Protection

The Greek bodies responsible for the implementation of civil protection measures are:

- The General Secretariat for Civil Protection (GSCP)
- The Inter-Ministerial Committee for National Planning (ICNP)
- The Central Coordination Body for Civil Protection (CCB)
- Several authorities, organisations and institutions working together as an integral part in planning and rescue operations (e.g. the ministries, the fire brigade, the police, the defence forces, health and welfare institutions and aviation and radiation authorities)
- The General Secretariat of the region
- The prefectures
- The municipalities

A number of services are involved in providing disaster relief in Greece:

- The fire corps
- The coast guard
- The police
- The health services
- The armed forces
- The Earthquake Planning and Protection Organisation (EPPO)
- The competent agencies at regional and local levels
- Voluntary organisations with civil protection expertise

All ministries, regions and prefectures should draw up special plans for the confrontation of disasters based on the national civil protection plan "Xenokrates". The General Secretariat of Civil Protection is the general coordinator of the planning. The Inter-Ministerial Committee for National Planning (ICNP), composed of the heads of the competent ministries, approves the annual national plan for civil protection, including each ministry's civil protection budget. It also reports on the implementation of governmental measures for rehabilitation after major catastrophes.

The Central Coordination Body for Civil Protection (CCB), comprised by the secretaries general of the competent ministries and chaired by the General Secretary for Civil Protection, presents the civil protection annual national plan and budget for approval by the ICNP. The CCB is responsible for following up and evaluating the annual national planning and for coordinating the response to and recovery and rehabilitation of major catastrophes.

The General Secretary for Civil Protection and the general secretaries of the regions and the prefects are in charge of coordinating all operational forces depending on whether the disaster is general, regional or local. The National Operational Centre for Civil Protection provides all kinds of assistance to the civil protection forces.

Legal basis

At national level

- Act 2344/1995: Concerns the establishment of the General Secretariat for Civil Protection (GSCP) under the Ministry of the Interior, Public Administration
- Act 3013/2002: Concerns the upgrade of the role of civil protection in Greece, emphasising the importance of citizen protection and assigning roles to local authorities
- Ministerial Decision 1299/2003: Regards the National Civil Protection Plan "Xenokrates", which establish the general guidelines for emergency planning in Greece
- Presidential Decree 151/2004: Concerns the organisational structure of the GSCP
- Ministerial Decision 3384/2006: Refers to additions to the National Civil Protection Plan "Xenokrates" regarding the Special Plan for Human Loss Management
- Act 3491/2006, Article 15: Concerns the constitution of the CBRN Incidents Support Team
- Ministerial Decision 7270/2006: Regards the composition of the CBRN Incidents Support Team
- Act 3536/2007, Articles 27 and 34: Concern regulations in relation to civil protection issues
- Act 3613/2007: Concerns regulations in relation to the General Secretariat for Civil Protection (evacuations)
- Presidential Decree 184/2009: Concerns the constitution of the Ministry of Citizen Protection and establishment of its competence.

At international level

- The European Union (the European Mechanism for Civil Protection, Council Decisions of 23 Oct 2001/8th Nov 2007, Financial Instrument 2007/162/EC)
- EUR-OPA Major Hazards Agreement
- Black Sea Economic Cooperation (BSEC). Agreement on collaboration as regards emergency assistance and emergency response to natural and man-made disasters.

Regional agreements

- The FIRE-5 Initiative (Force d' Intervention Rapide Européenne 5)
- Memorandum of Understanding between the UN and the Government of the Hellenic Republic and the Government of the Republic of Turkey on Cooperation in the Field of Humanitarian Emergency Response
- Protocol on cooperation on combating oil pollution of the Mediterranean Sea and pollution caused by other harmful substances in cases of emergency (Albania, Algeria, Bosnia & Herzegovina, Croatia, Cyprus, the European Community, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Morocco, Monaco, Slovenia, Spain, Syria, Tunisia and Turkey).

For more information on private volunteers, please contact: ethelontismos@gscp.gr

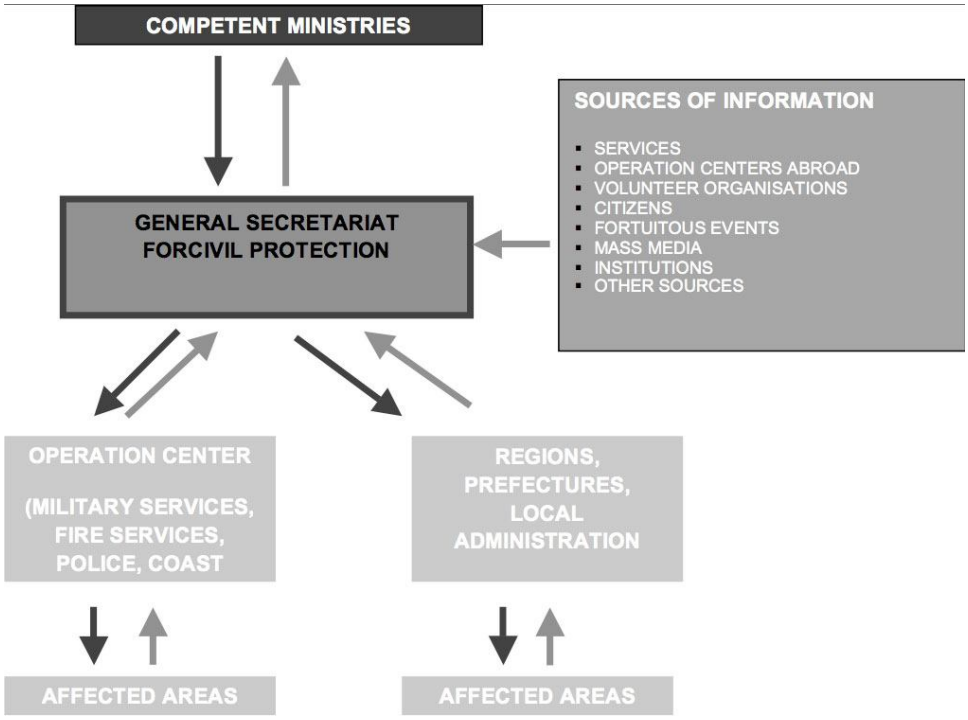
4. ISO 31010 – Risk Management

II. Description of IDMS

1. Types of IDMS

- floods
- avalanches
- fires

3. Draw a flowchart



HUNGARIAN BEST PRACTICE

Task C

Partner: Lake Balaton Balaton Development Coordination Agency

Responsible Person: Gabor Molnar Dr.

Expert: Peter Szedlak-Kun

Others: Tibor Benei

BEST PRACTICE
IDMS Local Description Form

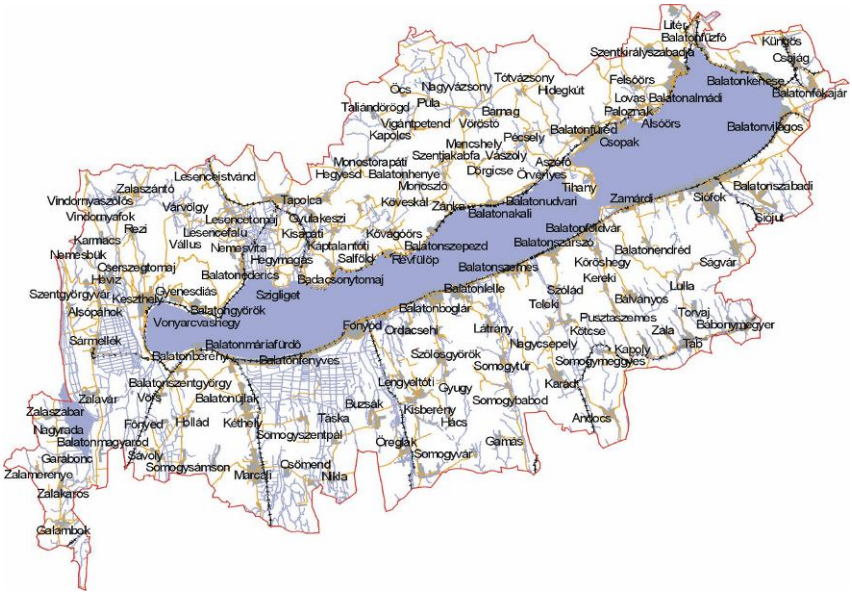
I. Introduction

1. Characteristic of the region

Lake Balaton is the largest freshwater lake in Central Europe and represents one of the most significant natural treasures of Hungary. Its popularity results from a favorable climate, warm water in summer, beautiful landscape surrounding the lake and its cultural-historical values. The tourism value of the Lake Balaton is not only determined by the lake water quality and quantity, but by the unique beauty of the natural and built environment, nice beaches, beautiful vineyards and recreational services built on local traditions.

The lake surface is 594 km^2, its water volume is around 2 billion m^3 but the average depth is quite shallow at 3.2 m. The deepest point is 11 m in Tihany bay. The length of the shore is 235 km. Its catchment area (together with the lake) is 5,775 km^2. The Zala river is the most significant water-source to the lake. The lake's length is 77 km, its width is 12 km at the widest point and only 1.5 km at its narrowest point. The lake's summer temperature is around 22-27 ^oC, while in winter it often freezes over.

The Lake Balaton Resort Area (3,780 km^2) lies almost entirely in the watershed of the lake and comprises 179 municipalities. Yet, regional resource allocation for the coordination of development is complicated since the Lake Balaton Resort Area falls into three different counties (Somogy, Veszprém and Zala) and three different statistical (NUTS-II) regions (South-, Central-, and West Transdanubia).



LANDSCAPE

In the **Northern part**, where there are medium-high hills near the lake and higher mountains farther on, there are three geographical units, the Keszthely Mountains, the Tapolca basin and the Balaton-highlands. The Keszthely Mountains are rich in geological values. The flora and fauna on its predominantly forest-covered dolomite and basalt based mass is determined by the unique ecological relations. The Tapolca basin is one of the most beautiful and most interesting landscapes of Europe, with its rich natural vegetation. The basalt "monadnocks" can be found here with their varied shape, "stone-organ pipes", rock towers, and the live settlement of numerous rare plant and animal species.

It is followed by the Tihany-peninsula with its 12 km^2 area, with its steep hillsides on the shore, its spring fountains, geyser-formations, and limestone- and dolomite rock-walls. Additional two lakes are located in the peninsula, amongst hills covered by forest and vineyards.

The Balaton-highlands is the northern stripe situated between the lake and the Bakony Mountains, westwards of Balatonfűzfő. The Southern part of the mountains is bordered by the Veszprém-Nagyvázsony-Tapolca furrow, and the shores of Lake Balaton. The landscape is an uneven plateau that rises over the lake by 150-200 m. The heights which rise over 300 m are built of limestone that moderately resists erosion.

The second, **Western** water catchment **region** is the catchment area of Zala River. The region is characterized by the moory, marshy land, which is bordered by the Marcali-hills on one side, and the Zala –hills on the other. The formation of the landscape is tightly connected with the history of Lake Balaton, since formerly it belonged to the bed of the "ancient Balaton". The sediment delivered by Zala river in the course of thousands of years has filled up the area almost entirely. This is Kis-Balaton (Balaton Minor), where willow and alder-covered lands alternate with high sedges. Numerous botanical rarities can be found also in this area, while its protected water-world is the home of birds enjoying international protection (Ramsar Convention).

The Hévíz-lake, deservedly famous for its medicinal water, can be found on the western catchment, near Lake Balaton. This is the largest warm water-lake in Europe, with water temperature of 38 ˚C.

*The third geographical unit of the catchment area is the Somogy-hills in the **Southern part**, where the loess-covered ridges run steep on to the shore. Marshes with groves can be found between them, expending outwards of the bed of the lake. They were also filled up formerly by the water of Lake Balaton, however the waves induced by the north-western wind have built up offshore sandbars, and thus the southern shore has been straightened up by the system of offshore bars, and the level control of the lake implemented in the 19th century resulted in the eventual separation of the marshlands from the lake.*

DEMOGRAPHIC CHARACTERISTICS

Based on statistical data of 2008, the permanent population of the Lake Balaton Resort Area was 274,953 persons. Some 51% of the population lives in towns, while the remaining 49% live in small villages. With 25,000 permanent residents, Siófok is the most populated town, while the tiny village of Óbudavár is the smallest settlement with just 58 residents.

In line with national trends the population of the resort area has been decreasing steadily in recent decades. The natural decrease of population is only partly compensated by the positive migration balance of the resort. Since migrants into the resort are not from the younger age bracket of the population, the ageing population ratio of the resort is growing faster than in other areas resulting in socio-economic stresses. The ratio of the young population also decreases as young and qualified people move out of the resort due to high real estate prices and the shortage of year-round employment opportunities.

There is a very significant number (about 72,000) of holiday houses in the resort area with an estimated associated population of 210,000 to 280,000 persons (domestic and foreign owners), which increases the total population of the resort to about half a million.

ECONOMY OF THE RESORT AREA

The GDP produced inside the legal boundaries of the Lake Balaton Resort Area (179 municipalities) was 592 billion HUF (2.25% of the national figure) in 2007. The per capita income of the resort shows a unique course of change following the “system change”, i.e. the sweeping political and economic change from socialism to capitalism starting in 1989. The period of crisis was shorter and the depression was less serious due to the smaller share of heavy industries in the regional economy and thanks to the higher than average entrepreneurial activity. In this way, in the initial period of changes, the resort was in a more favorable competitive position as compared to other regions and could secure this position up to the end of the 1990s.

The estimated per capita GDP of the Lake Balaton Resort Area was equal to the national average in 2007 and it was 127% of the “provincial” average (country without Budapest).

The number of operating businesses in the resort area is 26,562, which is about 3.7% of total of Hungarian businesses. The entrepreneurial density per 1000 inhabitants is considerably higher in the resort area (103) than the national provincial average (62). More than 3/5 of enterprises (63.7%) are located in lake-shore communities.

Businesses of the resort are smaller in size than the national average. Based on the number of employees, about 9% of the businesses are micro-enterprises (1 to 10 employees), and 77% of them

are individual entrepreneurs (self-employed).

Distribution of the number of enterprises in the Lake Balaton Resort Area among sectors of the economy shows the importance of tourism. The shares of accommodation services (estimated at about 500,000 beds) and restaurants are more than double the national average. Based on the statistics of 2009, about 1 190 000 tourists visited the area. In 2009, the Lake Balaton Resort Area received about 23% of the tourists of the country. With 4.355 million registered guest nights, the resort produces more than one-third of tourism related revenues of the country.

DISTRIBUTION OF THE POPULATION AND SETTLEMENT STRUCTURE

The resort is dominated by small settlements (with 500 to 2000 permanent residents). About 51% of the populations live in 17 towns and the remaining 49% live in 162 villages. Population density within the resort shows large differences, with 102 person/km^2 in lake-side communities and as few as 49 person/km^2 in those further afield. During the high season, the number of tourists exceeds that of the permanent population in some of the communities.

On analyzing the settlement structure and economic advancement of the Lake Balaton Resort Area, three distinct trends are revealed.

- Distance from the shoreline of Lake Balaton, the most important tourist attraction of the resort;
- Size / population of the settlements;
- Micro-regional homogeneity can be demonstrated in terms of almost all relevant development indicators.

An analysis of the economic and other development data of the Lake Balaton Resort Area show that the closer a settlement is to the lake shore the higher the development and living standard indicators are.

NORDIC SKI ARENA AT EPLÉNY

The Nordic Ski Areana is located at Eplény, at the southern part of the Bakony Mountains, at about 20 -25km from the eastern part of Lake Balaton.
The ski slope at Eplény had a long history. It has always been a popular destination for skiing and sledging. Due to the constant investments implemented in the last couple of years, the ski arena is very well equipped in contrast to other Hungarian ski resorts. There are 35 snow canons, magnetic-card entrance, and 4 ski elevators. The total length of the ski slopes is 4.3 km.
The ski-slopes are welcomed by both the beginner and advanced skiers, as the gradient of the slopes are different. (The most ascent slope in Hungary can also be found at Eplény with a gradient of 30^0).

Website: http://www.skiarena.hu/

2. Civil Protection

In Hungary, according to the current legalization, the control of the civil protection, both in regional and national level, is in the hand of the National Directorate General for Disaster Management(professional governmental organization). From 01.01.2000. the fire service and the civil protection integrated into one – the National Directorate General for National Directorate General for Disaster Management- professional organization. Locally the fire service and the civil protection units are functioning as individual managing and executive units. The civil protection is regulated by the act XXXVII. 1996 as follows:

The civil protection is formed by the professional staff and the citizens based on the civil protection obligation, assigned from the population for this occasion.
According to the act:

- civil protection: a task and organization implemented in the system of the home defense, which main duties are to protect, save and to provide the circumstances of the surviving for the population of the country when an armed clash or disaster or any other emergency situation happening.

- civil protection obligation: the obligations of the citizens in the civil protection is the part of the home defense commitment;
- civil protection organization: the organization which, according to the obligations set by the act, through his professional and citizen members, implements these actions
- professional civil protection unit: a unit which has professional civil and public servants to plan, organize and control of the missions recognized by the act;

Basic direction rules of the National Directorate General for Disaster Management and the Civil Protection:

- The county chief of the National Directorate General for Disaster Management directing the civil protection units missions directly.

- In a disaster situation the Director-General of the National Directorate General for Disaster Management could give direct instructions to the fire service units to implement a rescue mission, to prepare for a disaster situations, to report, to leave their operational area, and to perform a special standby service.

- If any extraordinary situation happens, according to the reports of the official professional organizations, to declare a disaster situation and to inform about this the local Mayor.

- The protection actions should start as a first response by the local organizations with the lead of the local Mayor. The county chief of the National Directorate General for Disaster Management could declare the accident as a disaster.

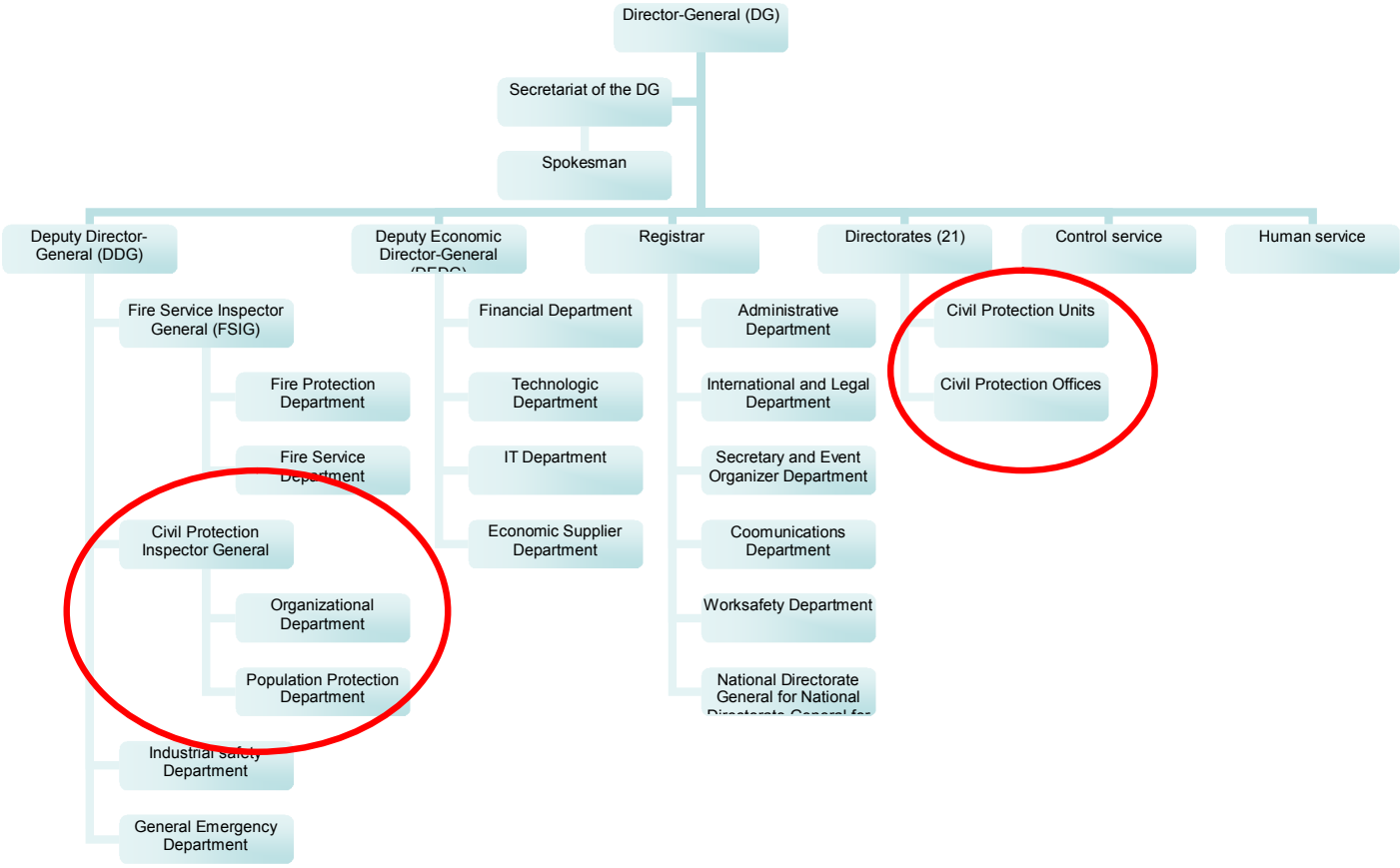
- When this happened, the county chief must report this immediately to the Director-General of the National Directorate General for National Directorate General for Disaster Management.

- If the situation is behind the local opportunities the county Defense Committee takes over the leading. Taking care about the usage of the available forces, forming the Operative Staff, and

informing the Governmental Coordination Committee.

- The President of the Governmental Coordination Committee propose to the Ministry of Interior Protection Working Committee to convocate the Scientific Council, perform actions to activate the professional National Directorate General for Disaster Management units.

According to the rules above, the structure of the Hungarian civil protection is:



The red circles marking the civil protection sections inside the structure:

The Hungarian Civil Protection:

The Civil Protection from 01.01.2000. is working as an integrated section of the National Directorate General for National Directorate General for Disaster Management.
The act. 55/1997 (X.21.) Ministry of Interior regulating the forming, the control, the budget background of the Civil Protection. According to the act in any disaster or in the danger of a disaster the leader of the rescue, civil protection or rebuilding mission is the local Mayor. His two main task is to order the local citizens to participate in the civil protection missions and to provide educations for them.
Regionally in Hungary there are Civil Protection Units and Civil Protection Offices, whom directly leading the civil protection task in their territory.

Basic Civil Protection Unit sin Hungary:

- Monitoring and warning
- Communications
- Leadership provider

- Evacuating - Replacement
- Shelter
- Animal and plant protection
- Public health and epidemiological
- Radiological, biological, chemical /RBC/
- First aid and injured transportation
- Technical rescue
- Technical and damage liquidator
- Supporting
- Transporter

The Civil Protection Units could be:

- fast (6, 8, 12 hours)

- short (16, 24 hours)

- long (36, 48, 72 or more hours)

term reaction units.

3. Legal framework

Act's according to the National Directorate General for Disaster Managementand the Civil Protection	
2010. VI. act	26.05.2000. Hazardous Materials International Inland Open Water transporting (ADN)
2009. CXLIII. act	Between the Government of The Hungarian Republic and the Government of Macedonia about the mutual aid in disaster situations
2004. CV. act	homeland defense and the Hungarian Defense Forces
2001. LXXXI. act	Aarhusban,25.06.1998. about the information freedom and the justice rights
2000. IX. act	Between the Government of The Hungarian Republic and the Government of Ukraine about the mutual aid in disaster situations
1999. CXII. act	Between the Government of The Hungarian Republic and the Government

	of Austria about the mutual aid in disaster situations
1999. LXXIV. act	about the leading and the organizations of the protection missions in the disaster prevention and about the protection of the hazardous material accidents
1996. XXXVII. act	Civil Protection
1996. XXXI. act	a fire prevention, fire services
1979. 19. No.	hazardous materials public road transportation
18/2006. (I. 26.) No.	about the protection of the hazardous material accidents
139/2004. (IV. 29.) No.	the Ministry Of Interior National Directorate General for Disaster Management Directorate General market surveillance mission rules
100/2004. (IV. 27.) No.	about the electronic communications in emergency state
128/2001. (VII. 13.) No.	about the UN 17.03.1992. Industrial Accidents Trans boundary Effects
130/2000. (VII. 11.) No.	17.03.1992. Helsinki boarders crossing rivers and international lakes protection and usage
114/1998. (VI. 11.) No	Between the Government of The Hungarian Republic and the Government of Croatia about the mutual aid in disaster situations
212/1997. (XII. 1.) No	Between the Government of The Hungarian Republic and the Government of Slovakia about the mutual aid in disaster situations
60/1997. (IV. 18.) No.	about the shelter protection , the personal protection equipment's, the citizen warning system and the evacuation and replacement
196/1996. (XII. 22.) No.	about participating in a rescue mission, and the tasks of the Ministers
150/1995. (XII. 12.) No.	Between the Government of The Hungarian Republic and the Government of Slovenia about the mutual aid in disaster situations
114/1995. (IX. 27.) No.	the settlements civil protection classification
48/1999. (XII. 15.) Ministry of Interior	about the Interior Minister task concerning to the National Directorate General for Disaster Management tasks
20/1998. (IV. 10.) Ministry of Interior	about the civil protection planning
13/1998. (III. 6.) MINISTRY OF INTERIOR	about the civil protection preparation rules
55/1997. (X. 21.) MINISTRY OF INTERIOR	about the civil protection obligations concerning to the organizations forming, leading, support background

49/1997. (IX. 16.) MINISTRY OF INTERIOR	about the civil protection regions
7/1997. (II. 4.) MINISTRY OF INTERIOR	about the civil protection professional staff services regulations
18/1996. (VII. 25.) MINISTRY OF INTERIOR	about the settlements civil protection classification
3/2006. (I. 26.) Ministry of Health	about the hazardous materials in the European Union
44/2000. (XII. 27.) Ministry of Health	about the hazardous materials and the procedures of the hazardous materials
2/1998. (I. 12.) Ministry of Agriculture	the agriculture sector civil protection tasks
95/2003. (XII. 18.) Ministry of Economy	about the Ministry of Economy tasks concerning to the civil protection
23/2005. (VI. 16.) Ministry of Defense	about the home defense tasks concerning to the disasters
27/1997. (X. 17.) Ministry of Justice	about the organizational tasks concerning under the lead of the Ministry of Justice about the civil protection
44/2007. (XII. 29.) Ministry of Education	about the tasks of the Ministry of Education concerning to the civil protection
1039/2009. (IV. 2.) No.	about the preparation for the disaster situations in 2009.
16/2008. (HÉ 51.)	about the National Directorate General for Disaster Management adapted equipment's

4. ISO 31010 – Risk Management

Now days in Hungary within the system of the National Directorate General for Disaster Management and in the field of the civil protection we don't have any system using the ISO 31010, however we have a governmental intention to use the standard.
The ISO 31000 standard regulations are followed in the risk management and during the emergency planning.
The ONR 49000ff risk management standard from 01.01.2010. are following the ISO 31000 standards.
The ISO Guide 73 risk concepts are followed either by the National Directorate General for Disaster Management and the Civil Protection units.
The National Directorate General for Disaster Management and the professional civil protection

units are using the MSZ (Hungarian Standard) EN ISO 9001:2009.

II. Comparison of IDMS

1. 1. Participants of the collection process:

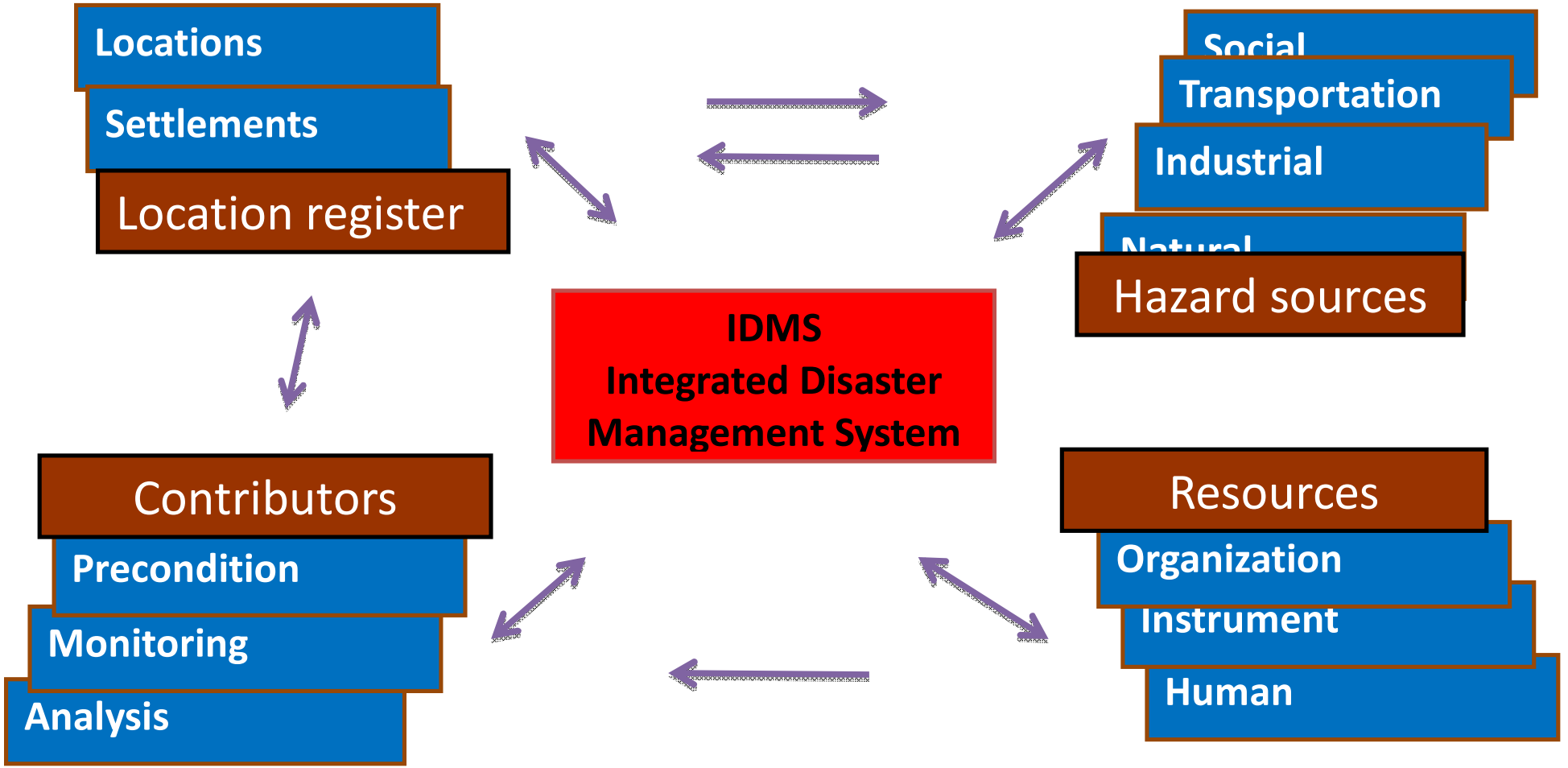
   Lake Balaton Development Council
   Lake Balaton Development Council Public Safety Councilor
   Hungarian Civil Protection Association
   Hungarian Meteorological Service
   Hungarian National Ambulance And Emergency Service
   Water Rescue Services of Hungary
   "KOTEL" Kaposvar Volunteer Firefighter and Rescue Association - Special Rescue
   Pest County Search and Rescue Service
   National Association of Radio Distress-Signaling and Info communications
   Hungarian Cave Rescue Service
   Budapest Volunteer Ambulance Association Disaster Response Group Foundation
   Novofer LTD. (Info communication company)
   BHE Bonn Hungary Kft. (UAV airplane company)
   NETI IT Consulting LTD.(IT company)

2. Types of IDMS

Introducing the theoretical background and importance of the IDMS

The presentation of Mr. Peter Jamrik, Lake Balaton Development Council Public Safety Councilor, showed us the basic theoretical background of the IDMS.

The structure of the system:



2. Description of IDMS

As we declared from the presentations the main reasons of an IDMS are the following:

- Structured and standardized incoming and outgoing information's
- Standardized way of information recording
- Clear, fast and effective way of decision-making
- Simple and clear method to overview of the available resources
- Integrated way of information registering, monitoring and resource handling
- Accelerated usage of protocol procedures

If we're focusing on the future possibilities and hazard sources we have to declare that it is necessary to integrate the resources, monitoring systems (and the out coming information from these systems), communications and protocols of procedures into a common system to support the decision-making and task solution process. Now days it is obvious to use the IT technology as the common language, as IT technology brakes down the original language problems. This process should base on a detailed education system, which prepares the human resources, either they are volunteers or professionals, to use the system and to be a part of the system. From the available information's we could recognize that, most of the systems are already existing in some formats, but the connections and synergies are not well structured or missing. The necessity of the system is also essential if we approximate from the view point of the participant stakeholder organizations, as their number is so high that the IDMS could make a clear, ordered way to reach the best resource applications.

IDMS possible components as it comes out from the workshop

Monitoring systems:

1. **Best Way:**

The Best Way solution, which company is the Google Maps Hungarian traffic information provider, is a real time monitoring system solution, which capable to monitor the traffic situation throughout the country. In a disaster situation the systems allows the IDMS officer to plan the possible routes based on the online and up-to-date traffic information layer. The monitoring system is using many resources in the information collecting process, so it is not based on a one-source information system. It means, the system could be used if one or more resources are temporary out of order.

2. **Balaton Information System (B.I.S.)**

The B.I.S. system was formed through the LIFE program. The system collecting various type of information's from different systems. Some example: wind speed, direction in real time average and the last hours maximum, monitoring the area storm signal system, water temperature, relative humidity, the water algae concentrate, traffic monitoring sensors, etc. The system has 50 information sources and information point (where the collected information is reversed to the

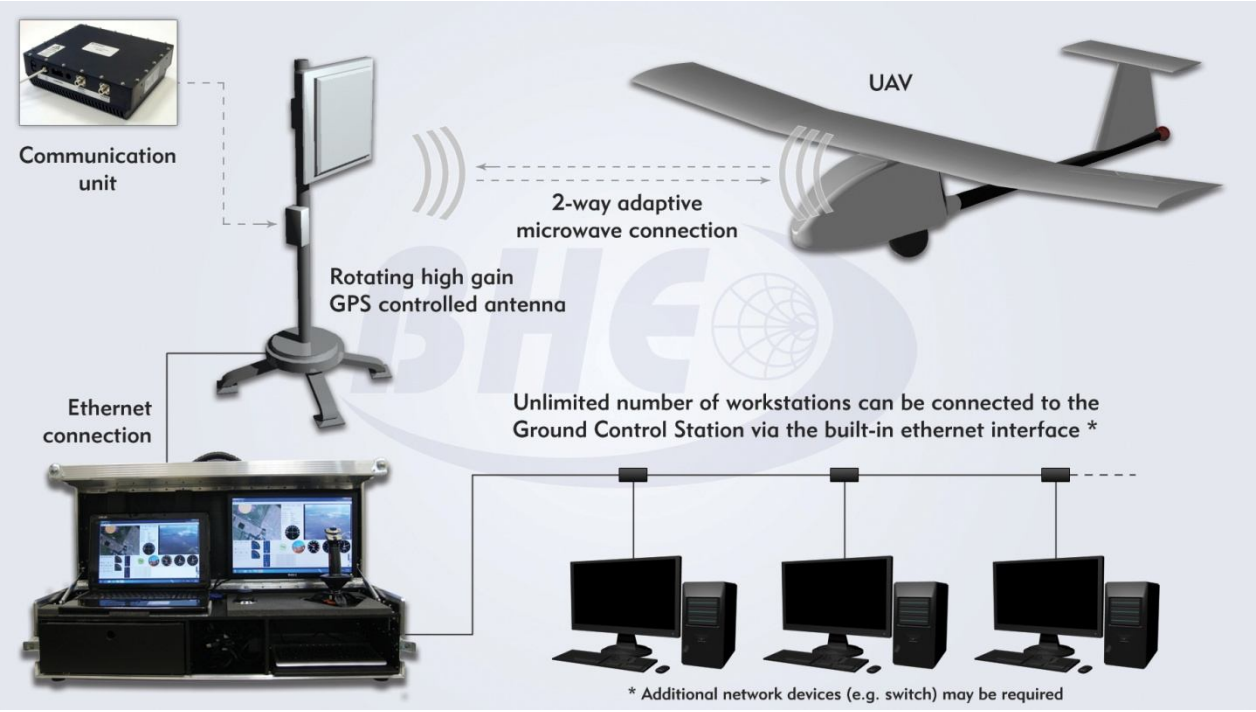
public).

3. National Weather Service

The Hungarian National Weather Service (OMSZ), following the EU agreements, is not just providing weather forecasts, but running a nationwide early warning system. The system has various levels and regions. When a possible dangerous weather situation is coming the OMSZ could give out warnings. There are several ways for this, as the internet, TV broadcasts, radio news, warning faxes and emails. The newest regulations give the rights for the OMSZ and the National Directorate General for Disaster Management to perform warning through all the commercial radio and TV, providing to reach as fast as it possible most of the citizens in the country.

4. BONN Hungary UAV

The BONN Hungary LTD. solution is an Unmanned Aerial Vehicle. The main idea is coming from the military UAV applications, but adapted for the civil protection needs. For this the vehicle should be as small as it could be operated from a normal passenger vehicle, with an extremely short runway (a few meters). This UAV has an electrical prop engine and could carry a normal high resolution and a thermal camera. The vehicle is remote controlled from the ground, but doesn't need any special education, as the operator should control the system through a map based software. After the vehicle gets the orders the real maneuvers are handled by the UAV itself. What does it mean for the IDMS? An IDMS where one or more scout UAV is integrated is capable to collect information about the field extremely fast.
The way of the communications with the UAV scout:



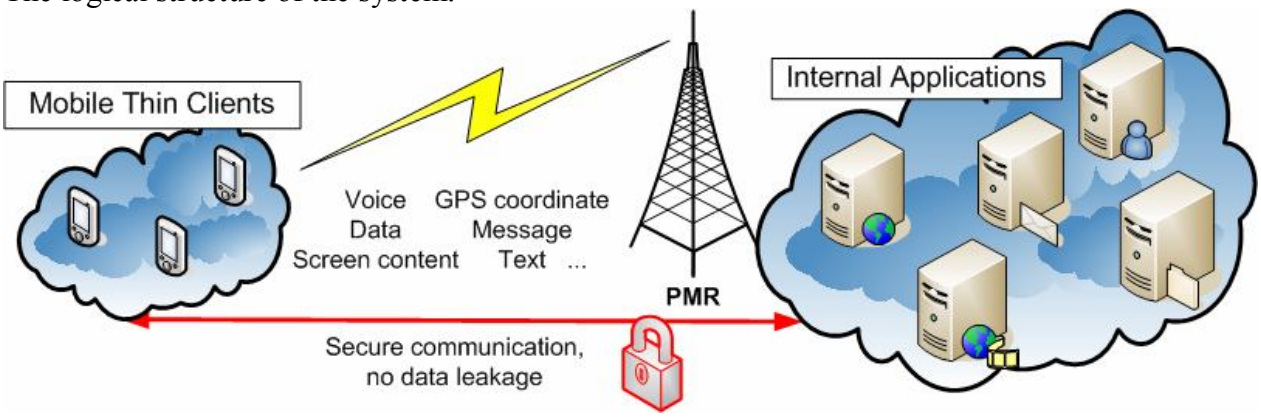
As on the illustration seems the system could be connected to an IDMS system where we could have unlimited number of work station, where we could use the real time picture from the UAV cameras, and could make order to the controller. F.e.: in the IDMS office a responsible person recognize an unidentified object on the thermal camera picture. After this the officer could give an

order to the controller to scan that area again. The controller could send back the UAV by gps coordinates to rescan the area where the unidentified object found.

IDMS IT solutions

1. **NETI Phone system**

The NETI Phone system is a brand new, still under construction, system. The main idea of the system, to have a thin layer on any mobile net capable device, and run the application not on the device (as the device has low resources), but on a terminal server.
The logical structure of the system:



With this application it could be really easy to use any kind of application on any kind of device (which could run the thin layer application), so it is not important for all the volunteers to have the same device.

2. **Communication**

The National Association of Radio Distress-Signalling and Infocommunications showed several solution for communication. The most up-to-date service is the TETRA system, which is used by the authorities (f.e.. police, fire service, ambulance, etc.) called in Hungary EDR. This system is very similar to a gsm system, but much more than that. The system needs a lot of resources and critical infrastructure, so in a disaster situation the system could injure, but within a few hours, with mobile stations, it is easy to establish a local network, and to reestablish the connections. The representer of the association also draw our attention about advantages of the older techniques like VHF.

3. **WebEye real time fleet management**

With the WebEye real time fleet management is possible to monitor and follow all the available resources in the system. The WebEye system is using now a hybrid gps-gsm system. If in a disaster situation the critical infrastructure like gsm network or the internet or the intranet is damaged this solution couldn't be used any more. But. There are solution for this also, because the gps technology could be combined with a VHF solution (like above), so than the system could be used either only locally or nationwide. With this the system needs only a few base stations (mobile) and a central station (IDMS office). With the usage of the real time fleet management it is possible to monitor all the human and other resource during a rescue mission in a disaster hit area, giving the chance to responsible person to make immediate action from real time information's from the field.

4. Hungarian Water Rescue Services Integrated Accident Management System

The Hungarian Water Rescue Services (HWRS) developed an accident management system. But this system is far behind only the accident management. The system is integrated with the HWRS public website, handling the information's about the member volunteers, as well as it is the communication layer with the authorities. All the daily information's or the individual accident reports are managed by the system in an uniformed way. It means not only that all the information's are held in an uniformed way, but from this it is possible to learn the information's, and makes much easier developing the processes and rescue procedures. Through the system it is also possible to handle all the personal information's belonging to the volunteers or to the rescue units. This could make it hundred times faster to find solutions in an emergency situation. Like if you need somebody with any kind of language knowledge, or any kind of knowledge saved in the system, you can find it within seconds, and not just the information it self, but also the communication channels to this person, or unit. The system also capable to handle the education model. It means the instructors could set their course by themselves, and the system immediately and automatically pushing out the information into the public layer (website). After this, the students could participate the course through the internet page, they information's are immediately connected to the course, so the instructor has real time information about the course, participant, could send message to them, and manage the education from the first second until the diploma through the system. The operators in the HWRS office more over could see their rescue boats as this system is combined with the WebEye real time fleet management system. The IAMS has the same idea and structure like an IDMS, but on a lover daily usage level for daily accidents.

ITALIAN BEST PRACTICE

Task C

Partner: Co- CRPC

Responsible Person: Silvio Bartolomei

Expert: Marco Masiero

Compiler: ST Consulting

BEST PRACTICE
IDMS Local Description Form

I. Introduction

1. Characteristic of the region

1.1 Territorial level

Regional: *Veneto Region*

1.2 Description of context

The context of IDMS activities concerns the regional level and it has to consider both the actual rules and procedures and the operative forces responsible of civil protection. Identify one Civil Protection system is hard because of its development on different levels (national and regional) and its involvement of many entities and institutional bodies with different roles and responsibilities, beyond local Volunteers component. Veneto territory has a variable conformation, that determines both the evaluation and the management of different risks (disasters). For example in mountain areas main risks are avalanches, forest fires; in the plain area are floods and in the industrial districts are chemical disasters, different kinds of pollution and others risks related to industry wastes.

2. Civil Protection

The Regional system of Civil Protection was developed in function of national/regional rules progression. The last one is leaning toward the inclusion of local public entities; for this reason the Veneto region is one of the first region in Italy to promote a Regional System of Civil protection, as a strategic net of administrative bodies of Veneto territory.
The Civil Protection of Veneto Region is composed by:

- 12000 Volunteers
- Regional Secretariat for Public work and Civil Protection of Veneto Region,
- Project Unit of Civil Protection of Veneto Regional Service,

- Regional Direction of Ground Defense,
- Periferic Units of Regional Civil Engineer,
- Periferic Units of Regional Forest Service- AIB,
- Veneto Regional Environmental Agency - ARPAV.
- Provinces,
- Reclaim Consortium,
- Mountain Communities,
- Civil Protection Districts,
- Municipalities,
- Others public and private entities.

3. Legal framework

- DGR Veneto 3467/2009,
- DGR Veneto 578/2009, forecast an ID badge RFID for the Civil Protection Volunteers
- DGR Veneto 2219/2009;
- DGR Veneto 2482/2009, training for civil protection Volunteers,
- L. 225/1992, on National Service of Civil Protection institution.

4. Risk Management

The coordination of activities is at different levels from national to local: President of Minister, National department of Civil Protection, Region, and other smaller local entities. The various centre will be activated in case of emergency, the operative centre will be in charge of activities on the base of territorial jurisdiction and seriousness of disaster. The kind of disaster is classified as follows:

- A -> natural events or events connected to human activities, these could handle by single local entities or ordinary administrative bodies. COC (City Operative Centre) is in charge to manage this situation.

- B -> natural events or events connected to human activities that could be connected with activities of few local entities or few ordinary administrative bodies. This type of situation interests more municipalities and for this reason the management of events is in charge of Co.R.Em (Regional Operative Centre of Emergency), as well as SOP (Provincial Operating Centre) and COC.

- C -> natural disasters, calamities or other events that need to be managed large means and power. In this case DI.COMA.C (National Department of Civil Protection) will be in charge to solve the disaster events.

The classification is quite approximate because of the impossibility to establish a one way to define the kind of emergency.

II. Description of IDMS

1. Types of IDMS

What is emergency about?

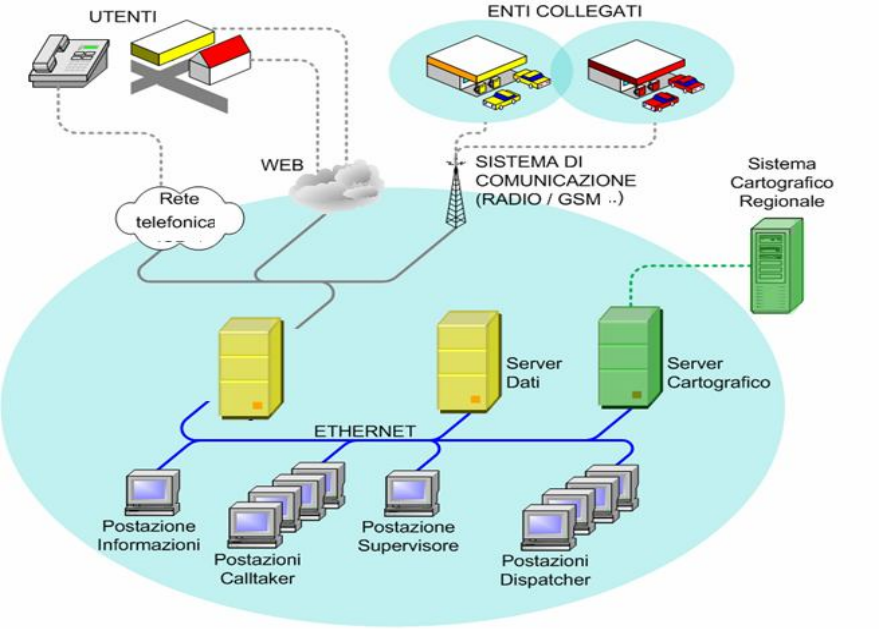
4. Environment
5. Chemical Industry
6. Industry fire
7. Flooding
8. Road accident
9. Fire

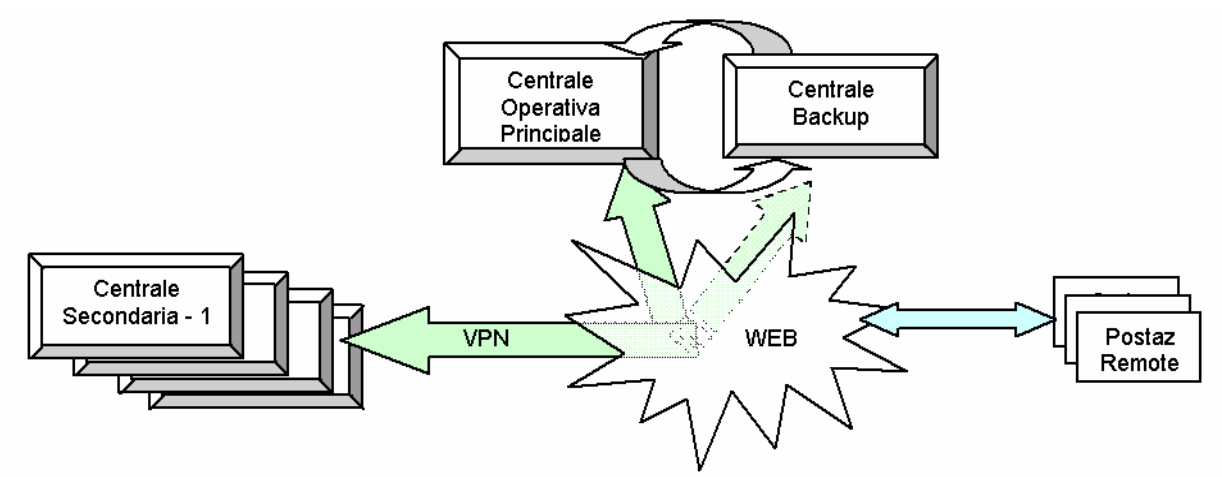
2. Description of IDMS

The Operating Room, composed by hardware, software and personnel, is the core of all IDMS. The IDMS is going to have the 112 user interface (number one for Europe emergency) when it will be in use at national level.
The Operating Room is the physical place where Volunteers Organization is located and works. It is composed by a minimum of 5 rooms, those are different in size and in structure, as:

- Operating Room de facto,
- Decision/Meeting Room – Radio Room,
- Meeting Room (large),
- Rest Stop.

3. Draw a flowchart





III. Crisis Management

1. **Risk assessment**

a) Program Risk Assessment

Three are three key-persons in the Operating Room consequently three are the phases of program risk assessment, as:

1. Signaling (Warning phase) is a news/information that will be scheduled and send by an user to a room operator or remote operating room. The signal format of Web system is able to create a warning in Veneto Region and to deliver it to Operative Rooms in the whole regional territory;
2. Event phase: a signaling (alert) will become an event only after its classification by an Operator,

Supervisor or Decision Maker. When the Operative Room receives an alert the system creates an event and it will be catalogued with a level A, B or C depending on seriousness. For each of the three levels of warning, the Regional Centre forecasts guidelines of intervention.

3. Intervention phase: is any external activity done by a team of Civil Protection.

The main phases of intervention can be summarized as follows:

- Volunteers alert
- Call-up
- Departure preparation
- Operative room and Radio room activities
- Return

IV. OFFICE (Call center)

1. Technical equipment

The *Multisala System* created by CRPC Veneto with the support of enterprises and experts, is composed by:

- RFId Volunteers Badge and tools
- RFId reader
- Software client server "FULL OPERATING ROOM"
- Software WEB called "MULTISALA System"
- Kind of device for localization of means/tools and the fleet management.

For the main place the Operating Room called COREm, includes backup and each Local Remote Operating Room (SOP), is necessary a server with the following character:

1. 2 processors Quad-Core Intel Xeon X7350 @ 2.93 Ghz,
2. 4GB RAM such as ECC and chipkill technology,
3. controller SAS RAID (additional on slot PCI-E) with 256MB cache, level management RAID: 0,1,1E,10,5, 5EE, 50, 6, 60,
4. 2 internal disk SAS “hot swap” 73GB a 15Krpm (expanded till 8 disk),
5. 4 door Gigabit Ethernet 10/100/1000 Mbps Full Duplex, with double integrated controller dual-port,
6. 6 slot I/O such us PCI-E: 2 slot PCI-Express x8, 4 slot PCI- Express x4 (1 taken by added controller RAID); 5 slot free,
7. DVD ROM unit 8x – graphic card VGA integrated - compatible with following Operative System: Server VMWARE support 2 virtual machine Windows Server 2003 or superior and 2 virtual machine Linux Ubuntu 9.04.

The client desktop posts (for the 3 level) request a Pentium 4 processor 3 Ghz and 2 Gbyte memory, hard disk with 10 Gbyte memory and an operative system Windows XP or more.

2. Main tasks

The main functions are:

1. Resource management: Planning and organization of tools, means, personnel, volunteers and all internal resources of Civil Protection, trough www.prociv.it.
2. Satellite Location and fleet management: instruments, central system and communication channel that allow monitoring of mobile unit operating in the emergency scenery.
3. Cartography: open layer interface map connect ed with Regional Cartography System,
4. Backup System: the Regional Operating Central is doubling in all his function, it collects works in case of central point fault.
5. Operating Local Centre in all territory for the local management and one Operating Centre as head of informative flux.
6. Web: all functions of operating rooms and maps are accessible by internet.

The essential role in the Operating Room are three:

- Operator: room operator is the person who works on PC post or by telephone or other communication tools (ex.: Caltaker and/or Dispacher);
- Supervisor: is an expert operator, collaborates with working team in the room, helps and puts through inward-bound and outbound rooms;
- Decision Maker: is the person who is in charge for expenditure budget and for control and command of Civil Protection System.

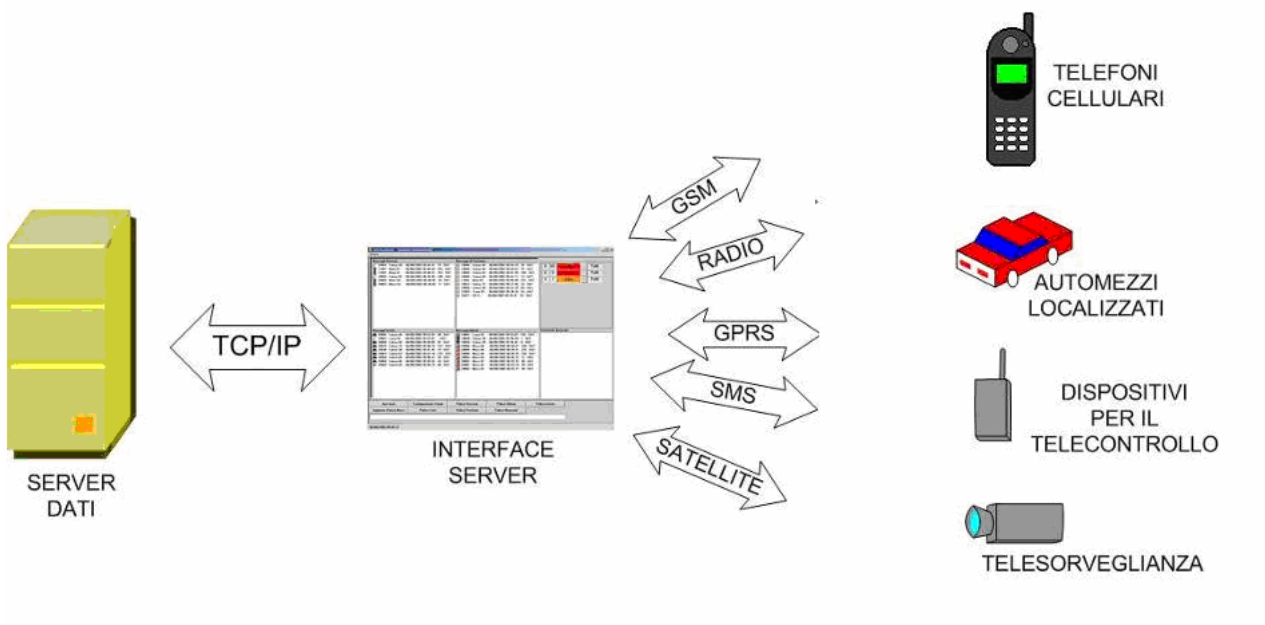
3. Organization

3.1 Communication connections

Interface Server applicant, in the IsGServer version, manages all the communication from and to mobile device; GPRS is integrated in. His main function are:

- Manage in the same time all communication channel: Radio, GPRS, GSM Data, SMS, etc., it identify from time to time the suitable channel from the available. The functioning is automatic.
- Server and Client applicants communication in the local/vnp net,
- It is the bus and the interface between external and the Operating room. (receive, send, archive, use right protocol, etc..)

The Interface Server is able to manage heterogeneous communication channel, it will be trough modem that will be connected to telephone line (ex. ISDN), remote net such as VPN, local net or serial.



3.2 Information connection

Is requested a VPN broadband with a minimum of 1Mbit of upload and download to ensure an interconnection between the all Operative Rooms and to allow an adequate update of shared data bank.
About the interconnection of mobile gears are necessary ADSL/HDSL lines (minimum 2) dedicate to data sharing with means; It's also possible use one line but at the expense of backup line.
In addition is request a Radio net with Radio device equipped by Radio modem for interconnection of mobile device. The Radio modem must be furnished by an adequate documentation and technical supports for the driver implementation of interface server control and LN09HW device or other hardware.

3.3 Systems for monitoring

IDMS system register all the activities done during an event, who receive the warning call, who make the decision and forces of intervention.

3.4 System for early warning to the population

The System for early warning of the population depends on the organization of Civil Protection or the bodies interest in. In Veneto Region, normally is the Co.RE.M the entity that alert the municipalities interest by the events, the person in charge for the alert is the Mayor.

4. Subsystems

The cartographic system was develop by CRPC to reply to management requirements' of complex and diffuse reality of territory, as the operatives of Civil Protection of Veneto Region.
The system is an open layer interface with Regional Cartography, it make use of new cartographic technology, such as open source like OpenStreetmap or commercial like: Google, Carto3D, LaserSfera, etc.. Through the cartographic client it is possible to see the position of a car, boat and obtain others multimedia contents; other function is the possibility to see both point of interest static

and dynamic.

V. Forces for crisis response

1. Institutions

Each administration identify a group (personnel and/or Volunteers) and a project leader in charge of development activities coordination, personification, training and Operative Centre activation. In addition of Project leader for each operating room will be identify a responsible person and define operators and supervisors (heads of turn and/or '*reperibili*') that persons will be trained on use and maintenance of system.

2. Rescue services

Not-determined.

3. Citizens, companies

There aren't roles and responsibilities forecast for citizens or/and companies.

4. Health Service

The Health Service are in charge of all medical and healthy aspects. The team composition will be changed according to kind of emergencies, seize of territory, number of people involved. They manage the Medical Advanced Point (PMA) and the ambulance. The PMA have any character:

- Safety location,
- Strategically position near communication ways,
- Signaling system must be adequate and with different way for entrance and to leave the site,
- Good character of temperature, brightness and climate system.

5. Volunteers

Volunteers are organized in team of 4 maximum persons, one of its is the leader. Their tasks are related to temporal phases of emergency, kind of emergency and needs of circumstances. There are on hand of coordinator for not-specialized needs of every day.

VI. Training in IDMS

The Veneto Civil Protection sets up a Regional Training Centre (CRPC), it is addressed to personnel and other subjects interested in. CRPC has developed relevant experience on training fields, it defines a standard training module and it is involved in the realization of didactic materials. It involves high-trained personnel in different specialization. http://www.centroprociv.it/

VII. Conclusion

1. Necessity of build IDMS

The coordination of forces is an important point in the emergency fields, this coordination is possible thank to a cultural approach and adequate software, these elements joint together form the IDMS system.

4. SWOT ANALYSIS

Chapter III contains the SWOT Analysis of each of the Partners made, according to the pre-defined template (Annex 2). During the Workshop (delivered in Smolyan) the participants took the decision to develop a Common Analysis, taking into consideration certain abilities.

The Chapter covers the SWOT analyses, developed according to the pre-agreed abilities. Besides, summarized evaluations on Organizational, Operational and Technical level are given. The following specific abilities have been taken into consideration:

- FLOODS
- INDUSTRIAL ACCIDENTS
- FOREST FIRES
- TERRORISM
- SNOW
- RADIATION

As a result of the SWOT analyses some conclusions, recommendations and possibilities of setting up/improving the work of Integrated Disaster Management System (IDMS) are made.

BULGARIAN SWOT ANALYSIS

Local SWOT analysis

Partner: Regional Administration Smolyan, Bulgaria

Responsible Person: Dipl. Eng. Momchil Karaivanov

Expert: Dipl. Eng. Dimitar Kalaydzhiev

SWOT ANALYSIS OF THE ACTIVITIES OF THE MANAGEMENT SYSTEM FOR CRISIS SITUATIONS

STRENGTHS

• Developed and adopted by the Council of Ministries are National Plan for Disaster Protection and National Programme for Disaster Protection;

• Presence of Ministry of Interior Act and the Disaster Protection Law following the EU requirements;

• Well-developed and feasible action plans for emergencies;

• Establishment of well-functioning structures for protection of the population in all regional cities and municipalities;

• Good communication and information system in the various agencies involved in the protection of the population and critical infrastructure;

• Performance of a regular preventive control of the specialized bodies for population protection;

• Well-trained management personnel and executives in departments;

• Good practice in preparing the population for the handling disasters and accidents;

• Established voluntary formations for disaster protection.

WEAKNESSES

• Delays in regulations production, and slow practical application of the already issued ones;

• Lack of geographically complete operational centers for crisis management building;

• Existing centers for crisis management are not adequately equipped with the necessary equipment and software;

• Lack of predictive models for emergency and crisis situations;

• Early warning systems are not upgraded in all places;

• Lack of unified information system building;

• Insufficient technical equipment;

• Lack of geographically sufficient voluntary formations for disaster protection building.

OPPORTUNITIES

• Accelerate implementation of laws and regulations to protect the population;

• Building effective centers for disaster protection;

• Modern technical equipment for the protection centers for disasters;

• Further development of early warning systems, including monitoring and establishment of modern and reliable communication links;

• Preparing and practical implementation of predictive models based on GIS for crisis management;

• Improving the qualifications of the management and workers staff;

• Increasing coordination of the various agencies by conducting practical exercises;

• Effective use of the full potential of EU funds to increase the willingness of people to act in crises;

• Encourage participation in joint projects with partners from the Member States;

THREATS

• Insufficient funding for complete building of centers for disaster protection;

• Underestimation of the crisis and emergency risks and the real necessity for population protection;

• Lack of sufficient number of well-trained GIS specialists;

CROSSING BETWEEN SWOT'S AREAS

STRATEGIES S-O ("develop new methodologies to exploit the strengths")
Wide use of new technologies for obtaining accurate information through remote sensing methods.

STRATEGIES W-O (eliminate the weaknesses to enable new opportunities)
Retraining/training the heads of institutional bodies that could launch a real coordinated process among operative rooms of several bodies.
Build a network of modern, well-equipped centers for crisis management with good communication between them.

STRATEGIES S-T (exploit the strengths to defend against threats)
Reaping the full potential of EU funds to increase the safety of people in crises situations.

STRATEGIES W-T ("identify defence plans to prevent external threats increase the points of weakness"
Not-determined

EXTERNAL ANALYSIS	**INTERNAL ANALYSIS**		
	SWOT analysis	**STRENGHTS:** - Developed and adopted by the Council of National Plan for Disaster Protection and National Programme for Disaster Protection; - Presence of the Ministry of Inferior and the Law on Disaster Protection in line with EU requirements; - Well-developed and feasible action plans for emergencies; - Establishment of well-functioning structures for protection of the population in all regional cities and municipalities; - Good communication and information system in the various agencies involved in the protection of the population and critical infrastructure; - Perform regular preventive control of specialized bodies to protect the population; - Well-trained management personnel and executives in departments; - Good practice in preparing the population for the handling disasters and accidents; - Established a voluntary formation of disaster protection.	**WEAKNESS:** - Delays in regulations production, and slow practical application of the already issued ones; - Lack of geographically complete operational centers for crisis management building; - Existing centers for crisis management are not adequately equipped with necessary equipment and software; - Lack of predictive models for emergency and crisis situations;; - Early warning systems are not upgraded in all places; - Lack of unified information system building - Insufficient technical equipment; - Lack of geographically sufficient voluntary formations for disaster protection building.
	OPPORTUNITIES: -Accelerate implementation of laws and regulations to protect the population - Building effective and well-equipped centers for disaster protection; - Modern technical equipment for the protection centers for disasters - Further development		

	of Early Warning System, including monitoring and establishment of modern and reliable communication links; - Preparing and practical implementation of predictive models based on GIS for crisis management; - Improving the qualifications of the management and workers staff; -Increasing coordination of the various agencies by conduct-ing practical exercises; - Effective use of the full potential of EU funds to increase the willingness of people to act in crises; -Encourage participation in joint projects with partners from the Member States;	**STRATEGIES S-O:** Wide use of new technologies for obtaining accurate information through remote sensing methods.	**STRATEGIES W-O:** Retraining/training the heads of institutional bodies that could launch a real coordinated process among operative rooms of several bodies. Build a network of modern, well-equipped centers for crisis management with good communication between them.
	THREATS -Insufficient funding for building of centers for disaster protection; - Underestimation of the crisis and emergency risks and the real necessity for population protection;; -Lack of sufficient number of well-trained GIS specialists;	**STRATEGIES S-T:** Reaping the full potential of EU funds to increase the safety of people in cases of crises.	**STRATEGIES W-T:** Not-determined

VII. CONCLUSION

In order to achieve better results it is essential to improve the coordination and increase the implementation efficiency of the existing knowledge and experience of the people. This should be combined with more effective use of regional resources and their improvement, more active participation of other organizations to support public administration in building a unified integrated system for emergency management. These in combination with further improvements of the prevention activities will lower the potential risks and will produce effective management during crisis and emergency situations in the individual municipalities and for the region as a whole.

HUNGARIAN SWOT ANALYSIS

Local SWOT analysis

Partner: Lake Balaton Development Coordination Agency
Responsible Person: Gabor Molnar dr., Zita Egerszegi
Expert: Tibor Benei, Peter Szedlak-Kun
Compiler:

Internal analysis

STRENGHTHS

Good organizing and cooperative capability during disaster management missions.
Willing to have innovative solutions.
Usage of the existing personal and technical capabilities.
Effective cooperation with the international agencies.
Fast response for the European directions and recommendations (SEVESO-II, Helsinki agreement)
Continuous improvement of the risk analysis methods.

Well managed media contacts.

Increasing national, international and European Union recognition.

WEAKNESSES

Low quality of information system sometimes with missing parts of the system. Miscommunications between the affected branches. Problems during the implementation of the immediate financing interventions.
The participation of the volunteer civil organizations in the disaster management processes is unregulated in several fields like education, financing system, etc. The official power is very much narrowed down in the last few years compared to the former regulations.
The administrative part of the structure is too complicated, not well structured, especially in classified management situations.
The knowledge of languages of the professional disaster management staff is very low (neighbour countries, too), and it causes difficulties in the cooperation during disaster situations.
The lack of independent financial resources.

Forecasting the disaster situations and possibilities are depending on the local units tendering (fundraising) capabilities. As the result of this there are big differences between the regions of the country.

External analysis

OPPORTUNITIES

Exchanging and implementing the NATO and EU best practices in local disaster management systems (f.e.: Hungary could be a lead partner in flood management in the Central European region)
Using the international experiences of the Hungarian specialists in local disaster management.
Improving the existing GIS and using them during the local forecasts, evaluation and decision making processes.
Improving the usage of the European Union funding and grant systems during the regional and central disaster management development.

There are possible funding sources from the European Union to develop the cross-border capabilities like disaster forecasting and disaster management systems development.
The effective communications and co-working among the international partners could improve the level of the disaster management in regional, national and international levels.

THREATS

To implement the new and improved IT technologies into the disaster management systems needs well educated professional IT staff.
The lack of the local funding mechanism (as a result of the economic problems) could result less effective reactions in the disaster management.

The lack of the education system could lead to that the professionals are getting older in the system, and it starts to build up a professional staff shortage.
The low speed of the infrastructure improvements is limiting the reaction capabilities both in national and international levels.

External analysis	**Internal Analysis (Belső analízis)**		
	SWOT analysis	**STRENGHTS:**	**WEAKNESS:**
	OPPORTUNITIES:	**Strategies S-O:** With the usage of the good organizing capabilities of the Hungarian Disaster Management the improvements should reach a high level through the national and international best practices. The legal procedures should implement the experience of the local and international professionals. There is a high need for organizing joint practice missions/trainings. During the improvement sessions it is necessary to use the existing GIS's in the process, to reach as a result highly effective forecasting, communicating systems during the disaster management. To reach this there is a high need for common "languages", like IT solutions, during the development process. The first step during the implementation of the system should be the common education system, where is really necessary to use common principles. During the disaster management planning period is necessary to use the international best practice based techniques. To reach this it is important to have in the professional teams persons with international knowledge and experience, that's why it is important that the planning and the implementation should lead by NGO's and international professionals	**Strategies W-O:** *Considering the international communication tendencies, which should be implemented into the Hungarian local particularity, there is a high need to form new processes for the population information (based on the new media procedures), to be able to inform the population in time in case of a disaster. During this there is a need to improve the human resources as well as forming new technologies using the newest up-to-date IT technologies. During this process media and IT professionals should be involved.* *To improve the joint missions there is a need for professional workshops, common communication, IT systems, and common methods. During this it is necessary to use the international and national best practices. The Hungarian regulations should be reviewed, and modified because to have the results of this improvement the local regulations should be conformed the systems. Also, it is really important that the legal acts and the financing background shouldn't affect the local population security level.* The new regulations of the disaster management system (either professional and volunteer) should give right to the authorities (Hungarian Disaster Management mainly) to prove the security either the local population either the

			concerned reaction forces. *The professional staff has to speak at least one foreign language, as this could provide the joint reactions in disaster situations.* To improve the reaction capabilities there is a high need for a best practice collection session, as well as a joint international professional team should set up new standard levels for the disaster management systems, both in theoretical, methodological and realisation level, including not just the methods, but the necessary technical systems, system parts, IT solutions as well.
	THREATS	**Strategies S-T:** *To have these new systems integrated into the disaster management process it is necessary to educate professionals for the usage of the IT and other technologies inserted into the system. The responsible leader making decision should be also capable to understand the information coming from the systems, and be able to combine the methods and the capabilities of the IT systems.* The education in the disaster management should be integrated, as nowadays this topic is separated in several type of schools. In governmental level it is very important to found new act about the disaster management which act should follow the EU regulations and define the system between the professional and volunteer forces. After the legal base it is necessary to set up the local IT system which could provide the technical back ground.	**Strategies T-O:** As the new IT systems need highly educated professional staff either in the lead either in the field, the first and most important to develop a modern, realistic education system. In the development period professionals from the EU countries should formulate together a common system, or at least define common drafts and system modules, as from the EU it is a high expectation to have common systems, which systems could work together in the case of emergency. During the development it is very important to explore the existing techniques, find the best connections between the systems, and form the new systems based on the best practises.

Conclusions and recommendations regarding the development directions

Legal background:

The legal background of the disaster management should describe the volunteer civil protection rights and liabilities and should describe the financial background.

The legal background should describe the way of communication and information exchange methods between the professional and volunteer units.

Organizational develompent

As the new system parts (IT) need highly educated and orientated staff, it is important to incorporate this need into the education system.

Technical background

As the IT technology provides a common language between partners, there is a high need to define common IT modules, processes and equipments, to form a common base for the joint European Integrated Disaster Management System.

ITALIAN SWOT ANALYSIS

Local SWOT analysis

Partner: Co- CRPC
Responsible Person: Silvio Bartolomei
Expert: Marco Masiero
Compiler: ST Consulting

Internal analysis

STRENGHTHS

- Better integration of Civil Protection components (human resources, hardware/software, instruments and tools, procedures, ...);
- Definitive registration of events during the time (who make decision, who act, etc..);
- Time saving for the activities across the board (Operative Rooms, outdoor, etc..);
- Control of personnel activities (saved money);
- Employment of opportunities in different opportunities;
- Ability of integration of different devices (ex: radio, hardware, mobile phones, etc..);
- Do a real-time analysis of events (ex: link to weather forecast);
- Simplicity/directness of the use by users.

WEAKNESSES

- The actual system need continuous training for personnel and/or Volunteers involved in;
- It doesn't forecast training/information course for top/executive level.

External analysis

OPPORTUNITIES

Possibility of IDMS use in one coordinated system among all forces involved in emergency activities.

THREATS

The different bodies (Civil Protection, Fire Brigade, Army, Police, National Health Service ...) work in autonomous way and each one have an own Operative Room.

Crossing Between Swot's Areas

STRATEGIES S-O ("develop new methodologies to exploit the strengths")

Use of technologies to obtain information by remote control.

STRATEGIES W-O (eliminate the weaknesses to enable new opportunities)

Retraining/training the heads of institutional bodies that could launch a real coordinated process among operative rooms of several bodies.

STRATEGIES S-T (exploit the strengths to defend against threats)

Prove with objective's data the relevant savings of time and money while the safety of population are guarantee.

STRATEGIES W-T ("identify defence plans to prevent external threats increase the points of weakness"

Not-determined

External analysis	Internal Analysis		
	SWOT analysis	**STRENGHTS:** - Better integration of Civil Protection components (human resources, hardware/software, instruments and tools, procedures; - Definitive registration of events during the time (who make decision, who act, etc..); - Time saving for the activities across the board (Operative Rooms, outdoor, etc..); - Control of personnel activities (saved money); - Employment of opportunities in different opportunities; - Ability of integration of different devices (ex: radio, hardware, mobile phones, etc..); - Do a real-time analysis of events (ex: link to weather forecast); -Simplicity/directness of the use by users.	**WEAKNESS:** -The actual system need continuous training for personnel and/or Volunteers involved in; -It doesn't forecast training/information course for top/executive level.
	OPPORTUNITIES: Possibility of IDMS use in one coordinated system among all forces involved in emergency activities.	**Strategies S-O:** Use of technologies to obtain information by remote control.	**Strategies W-O:** Retraining/training the heads of institutional bodies that could launch a real coordinated process among operative rooms of several bodies.
	THREATS The different bodies (Civil Protection, Fire Brigade, Army, Police, National Health Service ...) work in autonomous way and each one have an own Operative Room.	**Strategies S-T:** Prove with objective's data the relevant savings of time and money while the safety of population are guarantee.	**Strategies T-O:** Not-determined

SWOT ANALYSIS OF ABILITIES

Comprehensive SWOT analysis on the abilities

This part of the document integrates the provided country SWOT analysis according to the accepted competencies of the project participants. As a result of this some conclusions, recommendations and opportunities for building and work improvement of a European Integrated Disaster Management System (IDMS) are given.

Presented and summarized are the assessments on Organizational, Operational and Technical level.

The following specific skills (capabilities) are covered:

- FLOODS
- INDUSTRIAL ACCIDENTS
- FOREST FIRES
- TERRORISM
- SNOW
- RADIATION

ORGANIZATIONAL LEVEL

STRENGTHS

FLOODS	The responsibilities/tasks of Civil Protection Groups are clear. Three scales of emergencies exist with the relative institutional involvements. Plans for flood protection at the regional and municipal level are prepared. Clear competences, coordination and cooperation between the institutions.
INDUSTRIAL ACCIDENTS	The responsibilities/tasks of Civil Protection Groups are clear. Each enterprise shall establish an internal and external action plan during industrial accidents. Developed are municipal and regional action plans in case of industrial accidents. Clear competences, coordination and cooperation between the institutions
FOREST FIRES	The responsibilities/tasks of Civil Protection Groups are defined and codified. Competent Authority response to this disaster is Service "Fire Safety and Civil Protection" and groups for fighting fires established in municipalities, composed of volunteers. Clear competences, coordination and cooperation between the institutions.
TERRORISM	The responsibilities/tasks of Civil Protection Groups are clear. Established are municipal and regional plans for terrorist threats or situations. Reasons: In this kind of emergencies specialised forces are from Ministry of Interior, Ministry of Defence and health facilities intervene. Civil Protection supports the traffic management activity, the victual, the logistic activity and the psychological assistance. Clear competences, coordination and cooperation between the institutions.
SNOW	The responsibilities/tasks of Civil Protection Groups are clear. Eestablished are municipal and regional plans for strong and heavy snowfalls. There are institutions for coordination, technique and for clean up, as well as Mountain Rescue Body for retrieve and trace. Clear competences, coordination and cooperation between the institutions
RADIATION	The responsibilities/tasks of Civil Protection Groups are clear. Established are municipal and regional action plans for radiation. Clear competences, coordination and cooperation between the institutions.

WEAKNESS

FLOODS	Necessity to update continuously the databank containing the information about Civil Protection volunteers (qualifications, skills, roles, responsibilities, etc.) and groups (headquarters, responsible person, institutions, companies, technical equipment etc.).
INDUSTRIAL ACCIDENTS	Necessity to update continuously the databank containing the information about Civil Protection volunteers (qualifications, skills, roles, responsibilities, etc.) and groups (headquarters, responsible person, institutions, companies, technical equipment etc.).
FOREST FIRES	Necessity to update continuously the databank containing the information about Civil Protection volunteers (qualifications, skills, roles, responsibilities, etc.) and groups (headquarters, responsible person, institutions, companies, technical equipment etc.).

TERRORISM	Necessity to update continuously the databank containing the information about Civil Protection volunteers (qualifications, skills, roles, responsibilities, etc.) and groups (headquarters, responsible person, institutions, companies, technical equipment etc.).
SNOW	Necessity to update continuously the databank containing the information about Civil Protection volunteers (qualifications, skills, roles, responsibilities, etc.) and groups (headquarters, responsible person, institutions, companies, technical equipment etc.).
RADIATION	Necessity to update continuously the databank containing the information about Civil Protection volunteers (qualifications, skills, roles, responsibilities, etc.) and groups (headquarters, responsible person, institutions, companies, technical equipment etc.).

OPERATIONAL LEVEL

STRENGTHS

FLOODS	Good operativeness due to the knowledge of the theoretical and practical bases. A detailed action procedure is developed, describing the functions and the responsibilities of the staff, authorities, institutions etc. Civil Protection Groups intervene to support the authorities involved in principal in the logistic activities (traffic management) and in the persons' assistance.
INDUSTRIAL ACCIDENTS	Good operativeness due to the knowledge of the theoretical and practical bases. A detailed action procedure is developed, describing the functions and the responsibilities of the staff, authorities, institutions etc.
FOREST FIRES	Good operativeness due to the knowledge of the theoretical and practical bases. A detailed action procedure is developed, describing the functions and the responsibilities of the staff, authorities, institutions etc.
TERRORISM	Good operativeness due to the knowledge of the theoretical and practical bases. A detailed action procedure is developed, describing the functions and the responsibilities of the staff, authorities, institutions etc.
SNOW	Good operativeness due to the knowledge of the theoretical and practical bases. A detailed action procedure is developed, describing the functions and the responsibilities of the staff, authorities, institutions etc.
RADIATION	Good operativeness due to the knowledge of the theoretical and practical bases. A detailed action procedure is developed, describing the functions and the responsibilities of the staff, authorities, institutions etc.

WEAKNESS

FLOODS	It is possible that the procedures are not known at all levels of the chain of command, institutions and organizations. Not always dialogue procedures among the different subjects involved are defined.
INDUSTRIAL ACCIDENTS	It is possible that the procedures are not known at all levels of the chain of command, institutions and organizations. Not always dialogue procedures among the different subjects involved are defined.
FOREST FIRES	It is possible that the procedures are not known at all levels of the chain of command, institutions and organizations. Not always dialogue procedures among the different subjects involved are defined.
TERRORISM	It is possible that the procedures are not known at all levels of the chain of command, institutions and organizations. Not always dialogue procedures among the different subjects involved are defined.

SNOW	It is possible that the procedures are not known at all levels of the chain of command, institutions and organizations. Not always dialogue procedures among the different subjects involved are defined.
RADIATION	It is possible that the procedures are not known at all levels of the chain of command, institutions and organizations. Not always dialogue procedures among the different subjects involved are defined.

TECHNICAL LEVEL

STRENGTHS

FLOODS	Strong motivation of volunteers that allows Groups to face all kind of technical difficulties. Good technical equipment of the Operational Centre and the Rescue forces. Presence of technical skills, sometimes with high specialisations. Technical equipment is very important by means and tools.
INDUSTRIAL ACCIDENTS	Strong motivation of volunteers that allows Groups to face all kind of technical difficulties. Good technical equipment of the Operational Centre and the Rescue forces. Presence of technical skills, sometimes with high specialisations. Technical equipment is very important by means and tools.
FOREST FIRES	Strong motivation of volunteers that allows Groups to face all kind of technical difficulties. Good technical equipment of the Operational Centre and the Rescue forces. Presence of technical skills, sometimes with high specialisations. Technical equipment is very important by means and tools.
TERRORISM	Strong motivation of volunteers that allows Groups to face all kind of technical difficulties. Good technical equipment of the Operational Centre and the Rescue forces. Presence of technical skills, sometimes with high specialisations. Technical equipment is very important by means and tools.
SNOW	Strong motivation of volunteers that allows Groups to face all kind of technical difficulties. Good technical equipment of the Operational Centre and the Rescue forces. Presence of technical skills, sometimes with high specialisations. Technical equipment is very important by means and tools.
RADIATION	Strong motivation of volunteers that allows Groups to face all kind of technical difficulties. Good technical equipment of the Operation centre and the Rescue forces. Presence of technical skills, sometimes with high specialisations. Technical equipment very important in means and tools.

WEAKNESS

FLOODS	Sometimes, funding is not sufficient to maintain the technical equipment. The training is discontinuous. Lack of monitoring of the good conditions of machines and equipment.
INDUSTRIAL ACCIDENTS	Sometimes, funding is not sufficient to maintain the technical equipment. The training is discontinuous. Lack of monitoring of the good conditions of machines and equipment.
FOREST FIRES	Sometimes, funding is not sufficient to maintain the technical equipment. The training is discontinuous. Lack of monitoring of the good conditions of machines and equipment.
TERRORISM	Sometimes, funding is not sufficient to maintain the technical equipment. The training is discontinuous. Lack of monitoring of the good conditions of machines and equipment.

SNOW	Sometimes, funding is not sufficient to maintain the technical equipment. The training is discontinuous. Lack of monitoring of the good conditions of machines and equipment.
RADIATION	Sometimes, funding is not sufficient to maintain the technical equipment. The training is discontinuous. Lack of monitoring of the good conditions of machines and equipment.

Conclusions and Recommendations from the integrated SWOT Analysis

Generally, it was noticed that on the organizational level the coordination and interaction in accordance with the "chain of command" is important. In the different countries there are certain differences for the participants at certain levels of emergency management, but these scales exist and there are also similarities in the plans and procedures for reaction. Additionally, on operational and technical level the involvement of new IT technologies, equipment and models combined with training is also essential for improvement of the crisis/emergency management efficiency and the establishment of a joint European IDMS. A possible added value to this idea is the proposed Data Base for IDMS that could be shared among the EU.

Below are given and the detailed recommendations from the integrated SWOT analysis in accordance with the predefined organizational, operational and technical levels.

ORGANIZATIONAL LEVEL

To improve procedures and IT tools to update information in the database used by volunteers, specialized equipment, responsible persons, etc.

The legal background of the disaster management should describe the volunteer civil protection rights and liabilities and should describe the financial background.

The legal background should describe the way of communication and information exchange methods between the professional and volunteer units.

OPERATIONAL LEVEL

It is necessary to perform regular training and to conduct joint exercises in order to improve coordination of actors, including the use of the possibilities for simulation of different processes.

As the new system parts (IT) need highly educated and orientated staff, it is important to incorporate this need into the education system.

Improvement of the coordination between the institutions.

Improvement of the procedures regarding the cooperation.

TECHNICAL LEVEL

As the IT technology provides a common language between partners, there is a high need to define common IT modules, GIS, processes and equipments, to form a common base for the joint European Integrated Disaster Management System.

An important element is the use of modern innovative approaches for simulating the processes, coordinating, tracing, and rescue support through various types of aircrafts – manned or unmanned that are extremely useful for mountain terrains.

4. DATABASE – GENERAL MATTERS AND STRUCTURE

Structure of the Database related to the Best Practices:

- Best Practices provided by the Partners;
- Allows extracting data for each country *(on the basis of documents and reports)*
- Allows extracting data, related to each institution *(on the basis of documents and reports)*.
- Allows extracting data, related to each particular project *(on the basis of documents and reports*)
- Common Database of the legislation (by country) to be filled-in by each Partner
- Database: sources (web-sites, PDF-reports, etc.)
- Allows adding more data.

APPENDIX

STRUCTURE OF BEST PRACTICE

Date: _____

Partner: _____

Person (editor): _____

BEST PRACTICE
IDMS Local Description Form

I. Introduction

1. Characteristic of the region

1.1 Territorial level

local *[specify]:* _____

regional *[specify]:* _____

national *[specify]:* _____

international *[specify]:* _____

1.1 Description of context *[describe the site/territory/context where the BP works, max 500 characters]*

_____

2. Civil Protection *[describe CP organizations working in this area, max 500 characters]*

_____

3. Legal framework *[write the main laws concerning the Civil Protection in the area]*

_____

4. Risk Management

II. Description of IDMS

1. Types of IDMS

What is emergency about?

10. floods
11. avalanches
12. fires
13. technological disasters
14. others ...

2. Description of IDMS *(How is it working? What is the procedure?)*

3. Draw a flowchart

III. Crisis Management

2. Risk assessment

a) Program Risk Assessment

IV. OFFICE (Call center)

5. Technical equipment
6. Main tasks
7. Organization
    1. Communication connections
    2. Information connection
    3. Systems for monitoring
    4. System for early warning to the population
8. Subsystems

V. Forces for crisis response *[involvement, role, responsibility, ...]*

1. Institutions
2. Rescue services
3. Citizens, companies
4. Red Cross
5. Volunteers

VI. Training in IDMS *[Are there any courses? How many courses they do in a year? How many people were trained? Who do the training course? What are main topics?]*

VII. Conclusion

1. Necessity of build IDMS

STRUCTURE OF LOCAL SWOT ANALYSIS

Local SWOT analysis

Partner: _____

Responsible Person: _____

Expert: _____

Compiler:_____

Eexternal analysis / Analisi Esterna	**Internal analysis** / Analisi Interna		
	SWOT - analysis	**STRENGHTHS** FORZE	**WEAKNESSES** DEBOLEZZE
	OPPORTUNITIES OPPORTUNITA'	**STRATEGIES S-O** "develop new methodologies to exploit the strengths"	**STRATEGIES W-O** "eliminate the weaknesses to enable new opportunities"
	THREATS MINACCE	**STRATEGIES S-T** "exploit the strengths to defend against threats"	**STRATEGIES W-T** "identify defense plans to prevent external threats increase the points of weakness"

STRUCTURE OF

COMPREHENSIVE SWOT ANALYSIS ON THE ABILITIES

Comprehensive SWOT analysis on the abilities

ORGANIZATIONAL LEVEL

STRENGTHS

FLOODS	
INDUSTRIAL ACCIDENTS	
FOREST FIRES	
TERRORISM	
SNOW	
RADIATION	

WEAKNESS

FLOODS	
INDUSTRIAL ACCIDENTS	
FOREST FIRES	
TERRORISM	
SNOW	
RADIATION	

OPERATIVE LEVEL

STRENGTHS

FLOODS	
INDUSTRIAL ACCIDENTS	
FOREST FIRES	
TERRORISM	
SNOW	
RADIATION	

WEAKNESS

FLOODS	
INDUSTRIAL ACCIDENTS	
FOREST FIRES	
TERRORISM	
SNOW	
RADIATION	

TECHNICAL LEVEL

STRENGTHS

FLOODS	
INDUSTRIAL ACCIDENTS	
FOREST FIRES	
TERRORISM	
SNOW	
RADIATION	

WEAKNESS

FLOODS	
INDUSTRIAL ACCIDENTS	
FOREST FIRES	
TERRORISM	
SNOW	
RADIATION	

Conclusions and recommendations regarding the development directions for the abilities listed

ORGANIZATIONAL LEVEL

OPERATIVE LEVEL

TECHNICAL LEVEL

OTHER BEST PRACTICE

BEST PRACTICE
IDMS Local Description Form
Denmark

I. Introduction

1. Characteristic of the region

1.1 Territorial level

1.1 Description of context *[describe the site/territory/context where the BP works, max 500 characters]*

Denmark is the southernmost of the Nordic countries, southwest of Sweden and south of Norway, and bordered to the south by Germany. Denmark borders both the Baltic and the North Sea. The country consists of a large peninsula, Jutland (Jylland) and many islands, most notablyZealand (Sjælland), Funen (Fyn), Vendsyssel-Thy (commonly considered a part of Jutland), Lolland, Falster and Bornholm, as well as hundreds of minor islands often referred to as the Danish Archipelago. Denmark has long controlled the approach to the Baltic Sea(dominium maris baltici); before the digging of the Kiel Canal, water passage to the Baltic Sea was possible only through the three channels known as the "Danish straits".

2. Legal framework *[write the main laws concerning the Civil Protection in the area]*

Legislation

The work of DEMA is based on the Danish Emergency Management Act, which was last revised June 10 2009. DEMA is responsible for implementing the regulations and the operational and technical directives established under the Emergency Management Act and previous legislation.

DEMA is responsible for drawing up directives on a wide range of areas such as:

- Technical directives on fire and explosion hazards in enterprises and storage facilities
- Operational directives for community centres, hotels, schools, etc.

DEMA also administers rules on transport of dangerous goods by road and performs vulnerability assessments, national coordination and contingency planning.

3. ISO 31010 – Risk Management

II. Description of IDMS

2. Description of IDMS

Danish National Emergency Management Organisation - Emergency Management

The National Emergency Management Organisation comprises three levels which coordinate national-level emergency management: The Government Security Committee, the Senior Officials' Security Committee and the Crisis Management Group. The Crisis Management Group reports to

the Senior Officials' Security Committee and may submit proposals for decision by the committee. The Group is empowered to implement coordination measures.

NOST and IOS

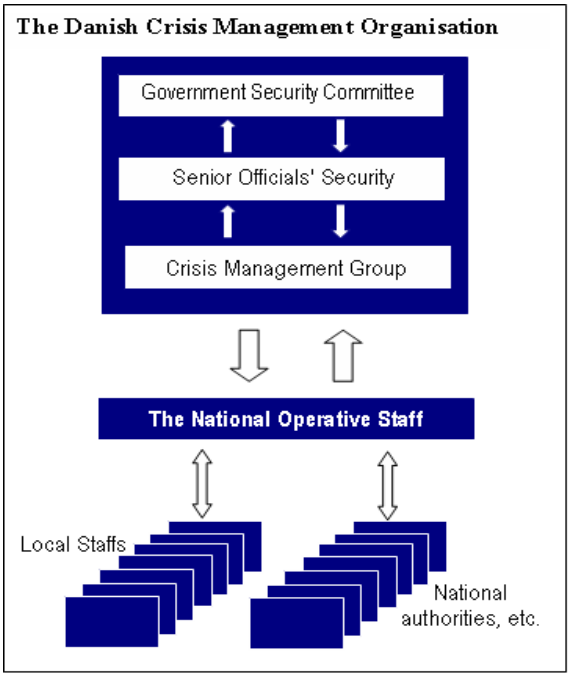
In addition, two operative staffs have been established:

- The National Operative Staff (NOST) consists of representatives from the relevant authorities. The purpose of NOST is to strengthen coordination between the military, police and other authorities in the event of major emergencies in Denmark. The primary task of NOST is coordination in case of major incidents that cannot be resolved in the individual regions. This includes terrorist acts in Denmark.
- The International Operative Staff (IOS) leads the coordination of Danish action in emergencies that occur abroad, including Danish aid to Danish citizens caught up in a disaster. The staff is led by the Ministry of Foreign Affairs. Its members consist of the most closely involved authorities, and it is supplemented as necessary by other public and private entities, e.g. from the tourism industry.

In an emergency the authorities must follow normal principles and procedures as far as possible. Authority is to a great extent delegated to the operational level, which means that the operational level is able to take the necessary measures without waiting for authorisation from the central level.

DEMA is a permanent member of both NOST and IOS.

3. Draw a flowchart



III. Crisis Management

3. Risk assessment

a) Program Risk Assessment

The Danish National Crisis Management Organisation

The national crisis management organisation of Denmark is comprised of the following three levels, which coordinate national level crisis management:

- **The Government Security Committee**, which normally consists of the Prime Minister (chairman), the Minister of Economic and Business Affairs, the Minister for Foreign Affairs, the Minister of Defence and the Minister of Justice.
- **The Senior Officials' Security Committee**, which consists of the permanent secretaries of the above-mentioned ministries, the Head of the Defence Intelligence Service and the Head of the Security Intelligence Service. The Defence Chief and others may be included if needed. The Permanent Secretary in the Prime Minister's Department serves as the chairman for the Parliamentary Committee.
- **The Crisis Management Group**, which consists of departmental and undersecretary level representatives of the above-mentioned authorities, as well as of the of the Ministry of Foreign Affairs, the Ministry of Health, Defence Command Denmark, the National Danish Police and DEMA. The group is chaired by the Prime Minister's Department.

The Crisis Management Group answers to the Senior Officials' Security Committee and can submit proposals for decisions to the committee. The group may decide to implement measures of a coordinating nature.

In addition, two operative staffs are established:

- **The National Operative Staff** (NOST): The national operative staff consists of representatives from the relevant authorities, and its purpose is to strengthen coordination among the military, police and other authorities in the event of major crises in Denmark. The primary task of the staff is coordination in case of major incidents that cannot be resolved in the individual regions. This includes terrorist acts in Denmark. The staff creates and maintains clarity and overview of a given situation as a basis for decision-making in the different sectors and nationally.
- **The International Operative Staff** (IOS): This staff leads the coordination of Danish action in crises that occur on abroad. This including Danish aid to Danish citizens caught up in a disaster. The staff is led by the Ministry of Foreign Affairs. The members are the most affected authorities, and it is supplemented as necessary with other public and private entities, e.g. from the tourism industry.

Danish preparedness legislation does not directly provide for the use of "discretionary powers". The authorities must in a crisis follow normal principles and procedures as far as possible. Authority is to a great extent delegated to the operative level, which means that the operative level may take the necessary measures without awaiting authorisation from the central level. The parliament may in special cases fast-track extra funds, if expenses exceed the financial limit of the authorities.

IV. OFFICE (Call center)

Fire and Rescue Service in Denmark - Emergency Management

The Danish Fire and Rescue Service works to prevent, reduce and remedy any damage or injury inflicted on human life, property or the environment as a consequence of accidents or disasters.

The Danish Fire and Rescue service is organised as a multi-level system which responds in case of fire, accidents or disasters, including natural disasters.

The Danish Fire and Rescue Service consists of:

- Local municipal Rescue Services (level 1) - in charge of the day-to-day Fire and Rescue Service
- Regional Fire and Rescue support units (level 2) - national equipment permanently stationed at the local level
- The National Fire and Rescue Service (level 3) - the six national Rescue Centres, which provide assistance to the local Fire and Rescue Services in the event of larger, protracted, or particularly personnel-intensive responses. The six centres also train the conscripts who make up the National Rescue Service reserve.

V. Forces for crisis response

The National Emergency Management Organisation comprises three levels which coordinate national-level emergency management: The Government Security Committee, the Senior Officials' Security Committee and the Crisis Management Group. The Crisis Management Group reports to the Senior Officials' Security Committee and may submit proposals for decision by the committee. The Group is empowered to implement coordination measures.

Division of responsibilities

An accident often requires the response of several authorities, each with their individual responsibility and expertise. In order that an emergency response runs as efficiently and smoothly as possible, it is important that everybody knows their own role and that of others. It is also important that co-operation adheres to predetermined principles that are respected by all parties involved in the emergency response.

The scene of accident is the place where an accident has occurred and a remedial response is being launched (the working area of the fire and rescue service). The response area is the area in which the overall response takes place (see figure). In the area between the inner and outer cordon, a treatment area for the injured, which is a kind of casualty ward, is established (the working area of the emergency medical service). Illustration of the response area and the scene of accident

In case of major accidents, an Incident Management Team is established which normally comprises leaders from the police, the fire and rescue service and the emergency medical service, but also leaders from other emergency management services may be represented.

The coordinating management rests with the police who is therefore responsible for the overall response running as efficiently as possible. Co-operation between the fire and rescue service and the ambulance service. The operational leader of the municipal fire and rescue service is responsible for

the technical management of the response at the scene of accident, including responsibility of all deployed units.

The leader of the emergency medical service and leaders of other emergency management services deployed areresponsible for the response within each of their individual sectors; cf. the general sector responsibility principle.

National - Operations

Centres

DEMA's six national Fire and Rescue Centres provide assistance to the Police and Fire and Rescue Services in major personnel-intensive emergencies or in situations requiring special equipment.

All national Fire and Rescue Centres have round-the-clock call-out, and are ready to respond within five minutes. They can reach any part of the country in two hours. Each centre has 75-80 conscripts and 40-100 volunteers (for Hedehusene, see below). In major incidents, DEMA can rapidly upgrade its strength with up to 1150 conscripts, officers and volunteers.

National service

The national Fire and Rescue Centres allow conscripts to do national service and receive emergency training at the same time. National service lasts six months. The training elements include instruction in the following fields:

- Firefighting (standard Danish firefighter training)
- Advanced First Aid
- USAR (urban search and rescue) training
- Response and basic training for accidents involving hazardous chemicals and CBRN incidents
- Physical training
- Rescue service

Volunteers

40-100 volunteers are linked to each national rescue centre. The centre at Hedehusene, near Copenhagen, is the base of a 300 man strong volunteer force of fire and rescue personnel. Volunteer personnel support the local Fire and Rescue Service and the local police, and can be deployed abroad as part of DEMA's capacity in major incidents and natural disasters such as earthquakes and floods.

International - Operations

DEMA is the focal point for requests to Denmark regarding international crisis and emergency assistance. DEMA is responsible for establishing and developing international assistance capabilities and for supporting coordinating efforts in disaster areas.

DEMA coordinates international civil protection cooperation in Denmark through bilateral cooperation with international authorities and organisations.

DEMA is also involved in reconstruction and security cooperation abroad.

Nuclear preparedness - Operations

DEMA leads the Danish response to nuclear emergencies abroad for protecting the population and environment.

DEMA is responsible for:

- National nuclear emergency planning
- Day to day nuclear emergency management
- Coordinating communication from the authorities to the public, should Danish territory be threatened by radioactive contamination.

Chemical preparedness - Operations

DEMA provides expert advice and assistance to authorities in incidents involving hazardous or unknown substances. Among DEMA's tasks are:

- Sampling and chemical analyses of hazardous and unknown chemical substances
- Consulting service in all aspects of the chemical properties of dangerous chemical substances and products, including explosives and chemical warfare agents
- Assistance at damage sites and crime scenes, including mobile detection systems for chemical substances

VI. Training in IDMS

Education and training - Inspection and advice

DEMA manages, develops and implements courses and training in emergency management and leadership for leaders and employees in the national rescue service and the Danish local fire and rescue services.

DEMA offers customised courses within emergency management, national rescue service and international emergency operations.

DEMA Emergency Services College in Tinglev, Denmark provides operational and tactical training courses for present and future leaders of the Danish Fire and Rescue authorities and also personnel from the police and medical sector. All present and future fire and rescue leaders in Denmark pass through the Emergency Services College.

In cooperation with the Police Commissioner, the college trains and authorises students from Fire and Rescue Services as well as the local police and the medical sector to act as Response Commanders in day-to-day emergencies.

BEST PRACTICE
IDMS Local Description Form
Finland

I. Introduction

1. Characteristic of the region

1.1 Description of context

Facts about Finland

Surface area: 338,000 km2, Land area: 300,000 km2,Lakes: 188,000 (area of at least 500 m2) Islands: 179,000 (surface area exceeding 100 m2 Coastline: 1,100 km Public roads: 77,780 km Cars: 2.2 million Motorcycles: 116,000 Snowmobiles: 96,400 Working population: 2,372,000

Population density:17 inhabitants / km2 (national average)2 inhabitants / km2 in Lapland705 inhabitants / km2 in the Greater Helsinki Region (Helsinki, Espoo, Vantaa, Kauniainen, Kirkkonummi, Siuntio)Nearly 20 per cent of Finland's population and aggregate floor area is concentrated in the Greater Helsinki Region, the area of Operating environment which represents less than 0.5 per cent of that of the whole country. The population density in this area is thus 46 times the national average.There are 5,206,000 inhabitants in Finland, 2.0 per cent of whom are of non-Finnish origin.Native language:Finnish: 92.14%, Swedish: 5.58%, Sami: 0.03%,Russian: 0.65%Other : 1.61%Religion:Lutheran: 84.6%Or thodox: 1.1%

Other : 1.1%, No religious affiliation: 13.1%

Maximum summer temperatures exceed +30 ºC.In winter, the whole country is covered by snow and the lowest temperatures are between –25 and –40 ºC .

2. Civil Protection

Rescue services

Finnish rescue authorities are responsible for the safety of people in any kind of every day incident, and in the unlikely event of a catastrophe or war. Finland is one of the safest countries in the world, and major accidents are rare here. Finnish rescue services vision Finland will have a good safety culture and the most efficient rescue services in Europe.With this in mind, Finnish rescue services operate according to the following principles:Rescue ser vices take efficient accident prevention measures. Rescue services personnel are well-motivated and skilled.Rescue ser vices carry out safety work in cooperation with a network of par tners.The ser vices provided are customer-oriented, cost-effective and propor tional to threats.The functions of Finnish rescue services are divided into accident prevention, rescue operations, and civil defence.Accident prevention

Finnish rescue services are responsible for the active prevention of fires and other accidents. Accidents can be prevented by taking safety into account in all activities from the outset. Safety work is carried out in cooperation with other authorities, various organisations, and citizens.

Rescue operations

Rescue operations refer to emergency measures taken in the event of an accident in order to protect and rescue people, property and the environment, to limit damage and to mitigate consequences. In the event of an accident, rescue services must be able to provide help swiftly and efficiently.

Civil defenceRescue services also have to function in emergency conditions. They take precautions to protect people and property in the event of an emergency

II. Description of IDMS

1. Types of IDMS

24/7 monitoring of the radiation situation

The Radiation and Nuclear Safety Authority of Finland constantly monitors the radiation situation throughout the country. The aim is to identify radiation hazards quickly and to take efficient measures to protect the population against the harmful health effects of radiation. In addition to the Radiation and Nuclear Safety Authority, the Ministry of the Interior, the Finnish Meteorological Institute, and the Finnish Defence Forces participate in radiation monitoring.

The dose rate of external radiation is measured by a monitoring network maintained by the Radiation and Nuclear Safety Authority and local rescue authorities. The network comprises about 300 automatic stations. Measurement data is stored in a national data system, where it is available for several authorities almost in real time. The radiation readings of these continuously operating stations are displayed on the website of the Radiation and Nuclear Safety Authority.

Regional rescue services are in charge of arranging chimney sweeping services in their region. They can take care of chimney sweeping themselves or obtain these services from a private contractor. Building owners and occupants are responsible for ordering chimney sweeping services for the building regularly

2. Description of IDMS *(How is it working? What is the procedure?)*

Alarms and communications

For the arrangement of emergency response centre activities, Finland has been divided into emergency response centre areas. The Emergency Response Centre Administration consists of the Emergency Response Centre Agency, based in Pori, and 15 emergency response centres (ERCs) throughout Finland. The Ministry of the Interior directs and guides the Emergency Response Centre Administration in cooperation with the Ministr y of Social Affairs and Health. The Emergency Response Centre of the Åland Islands operates under its own regional legislation.Emergency response centres receive emergency calls and other calls and aler t the help required 24 hours a day. Fur thermore, emergency response centres provide information ser vices to various authorities and act as communications centres. The Public Authority Network (VIRVE) is an efficient, full-coverage digital radio network serving security authorities. The network enhances collaboration and communication between the various authorities in all circumstances. Although the network functions as an internal system for each authority, its sophisticated features mean it will improve the authorities' readiness for communication with each other if required.The most important benefits offered by the Public Authority Network include speed, multi-user capability and the security provided by encryption. High serviceability requirements, both in daily operating conditions and in emergency conditions, have been taken into account in the design and construction of the network.The Public Authority Network serves all the different user groups and improves the operational capabilities of the authorities. The primary users of the network include State and municipal security authorities, such as Finnish rescue, police and social welfare and health authorities, the Border Guard, Customs, and the Finnish Defence Force

IV. OFFICE (Call center)

9. Technical equipment

Equipment

approx. 4,000 vehicles

approx. 540 boats and other vessels

snowmobiles, containers and hoist

10. Main tasks

Rescue operations include:
receiving emergency calls, aler ting rescue units and other help, warning the population
preventing impending accidents, protecting and rescuing people, proper ty and the environment at risk, fire fighting, and preventing and limiting, other damage,damping down, clearing and security, along with related command, communications, maintenance and other support function

11. Organization

Rescue service organisation 22 rescue ser vice regions 635 voluntary fire brigades and 153 institutional and industrial fire brigades over 700 fire station

1. Communication connections
2. Information connection
3. Systems for monitoring

Radiation monitoring

24/7 monitoring of the radiation situation. The Radiation and Nuclear Safety Authority of Finland constantly monitors the radiation situation throughout the country. The aim is to identify radiation hazards quickly and to take efficient measures to protect the population against the harmful health effects of radiation. In addition to the Radiation and Nuclear Safety Authority, the Ministry of the Interior, the Finnish Meteorological Institute, and the Finnish Defence Forces participate in radiation monitoring. The dose rate of external radiation is measured by a monitoring network maintained by the Radiation and Nuclear Safety Authority and local rescue authorities. The network comprises about 300 automatic stations. Measurement data is stored in a national data system, where it is available for several authorities almost in real time. The radiation readings of these continuously operating stations are displayed on the website of the Radiation and Nuclear Safety Authority.In Finland, the probability of a serious radiation hazard situation is small. However, since the risk of accidents exists, preparations for such a situation have been made. A serious radiation hazard situation can be caused by a nuclear explosion or an accident at a nuclear power plant. A local radiation hazard situation can be caused by an accident during transport of radioactive materials, for instance. Even the smallest changes in the radiation situation are reported immediately, and information is provided for the public without delay via radio and television. The automatic network also receives external radiation measurement data from other Nordic countries and from more than twenty stations in the vicinity of the Saint Petersburg nuclear power plant. Information about the imminent danger would be received by Finns long before it would be necessary to take protective measures. There are international agreements on the reporting of radiation and nuclear accidents. Good communication with neighbouring countries has also been ensured.In the event of a risk of radiation, the public warning signal will be sounded. A nationwide radiation monitoring network comprising about 300 automatic measuring stations is responsible for radiation surveillance 24 hours a daySystem for early warning to the population

Warning the population At national level, people are warned of an emergency over the radio and TV. An emergency announcement transmission system is utilised in the event of an immediate or manifest risk to human lives or considerable damage to proper ty or the environment. Emergency announcements are simultaneously transmitted via all radio stations and Rescue operationsRescue services in Finland.13 free TV channels nationwide. An emergency announcement interrupts all programmes irrespective of channel.

In the event of an emergency, people are warned at local level by the sound of the public warning signal. The signal means that the population is in immediate danger. When you hear the public warning signal, you should go inside and turn on the radio for fur ther instructions on, for example, protecting foodstuffs and moving outdoors.

The public warning signal is a continuous rising and falling siren sound provided via fixed outdoor alarms. These can be supplemented by mobile alarms in sparsely populated

areas. Each person should know the public warning signal and know what to do in emergency situations. After hearing an alarm, the population should first seek shelter indoors and then, only after instruction from the authorities, seek refuge in civil defence shelters

12. Subsystems

V. Forces for crisis response

For the arrangement of emergency response centre activities, Finland has been divided into emergency response centre areas. The Emergency Response Centre Administration consists of the Emergency Response Centre Agency, based in Pori, and 15 emergency response centres (ERCs) throughout Finland. The Ministry of the Interior directs and guides the Emergency Response Centre Administration in cooperation with the Ministr y of Social Affairs and
Health. The Emergency Response Centre of the Åland Islands operates under its own regional legislation.Emergency response centres receive emergency calls and other calls and aler t the help required 24 hours a day. Fur thermore, emergency response centres provide information
ser vices to various authorities and act as communications centres. The Public Authority Network (VIRVE) is an efficient, full-coverage digital radio network serving security authorities. The network enhances collaboration and communication between the various authorities in all circumstances. Although the network functions as an internal system for each authority, its sophisticated features mean it will improve the authorities' readiness for communication with each other if required.The most important benefits offered by
the Public Authority Network include speed, multi-user capability and the security provided by encryption. High serviceability requirements, both in daily operating conditions and
in emergency conditions, have been taken into account in the design and construction
of the network.The Public Authority Network serves all the different user groups and improves the operational capabilities of the authorities. The primary users of the network include State and municipal security authorities, such as Finnish rescue, police and social welfare and health authorities, the Border Guard, Customs, and the Finnish Defence Force
1. Institutions - The responsibility for the various functions of Finnish rescue ser vices is
divided between the State and regional rescue ser vices. The State rescue authorities are the Ministry of the Interior and Regional State Administrative Agencies. Regional rescue services are responsible for rescue services in their region. Furthermore, Finnish municipalities have a statutory duty to organise rescue services together in rescue service regions. There are 22 rescue ser vice regions in Finland.

VI. Training in IDMS

The Emergency Services College, situated in Kuopio, provides education and training in its field of specialisation under the supervision of the Ministry of the Interior. The College provides basic vocational training and further training in rescue services, preparedness training for emergency conditions, and other training related to rescue services. All vocational qualifications in
the field of rescue services are awarded by the Emergency Services College. A matriculation examination or vocational qualification is a prerequisite for admission to an educational
programme leading to a professional qualification in rescue services. A Fire Fighter Diploma qualifies the holder for full-time staff positions in fire and rescue services.An Emergency Response Centre Operator Diploma qualifies the holder for full-time ERC operator positions. A Sub-officer's Diploma qualifies the holder for sub-officer positions.Training Persons undertaking a Fire Officer's Training Programme (Bachelor of Engineering) are qualified for rescue service fire officer

positions. Fire officers work in various management, development, planning, training, and specialist tasks. The fire officer training is provided in collaboration with Savonia University of Applied Sciences.In addition, the Ministry of the Interior has assigned certain training duties to the Finnish National Rescue Association (SPEK). The SPEK organises training for voluntary and part-time fire brigade members. The SPEK also arranges further training in rescue services for private persons and different organisations and public authorities, as well as safety training for different government offices and agencies, and businesses

BEST PRACTICE
IDMS Local Description Form
Switzerland

I. Introduction

1. Characteristic of the region

1.1 Description of context

New dangers

Disasters, emergencies, terrorist attacks: these are the main hazards Switzerland faces today. Due to our modern and high-tech society, they can cause even greater damage than before. Their likelihood of occurrence is nevertheless high and may appear without any or only a brief prior warning period.

New system

The new joint civil protection system is the ideal response to current security challenges. It enables a comprehensive protection of the population, its vital resources and cultural property. The joint system brings together the combined forces of five partner organisations. The 'Civil Protection Concept' was adopted by the federal council (Swiss government) on 17 October 2001. The corresponding law on civil protection is based on this concept, which outlines the mission and structure of civil protection in Switzerland.

3. Legal framework

Federal Law on Civil Protection System and Protection & Support Service,

Federal civil protection legislation is based on Article 61 of the Federal Constitution of 18 April

1999

4. Risk Management

Hazard and risk analyses

Hazard and risk analyses provide the basis for action planning in the areas of prevention and precaution for coping with catastrophes and emergencies. Analyses are used to identify relevant hazards and to assess the resulting risks based on probability of occurrence and the extent of damage. The result is a differentiated picture of hazards and their effects, displayed as a risk matrix

Risk matrix

Integral risk management

Hazard and risk analyses are the starting point for, as well as a crucial element of, integral risk management. This concept is understood to mean the systematic identification, assessment, and prioritization of hazards and the associated risks, as well as management of measures for risk

mitigation. The individual phases of prevention, coping, and recovery are weighted equally within the integral risk management model and are mutually interactive. The demarcation between these phases is not always clear-cut.

II. Description of IDMS

1. Types of IDMS

Structure, command and management

Integrated system - modular structure

Civil protection is an integrated management, protection, rescue and relief system. The partner organisations are in charge of their specific tasks, and provide mutual support. Joint management ensures coordinated planning and preparation, and operational command in case of deployment. The resources of the partner organisations have a modular structure, with everyday incidents forming its basis. According to the type and severity of an incident, resources are coordinated and reinforced. The primary intervention resources (police, fire service, first aid service) deal with everyday incidents on-site according to established procedures. In the case of disasters and emergencies the partner organisations provide additional resources.

Management

The operational command of the partner deployed (generally the fire service or the police) is in charge of everyday incidents. For large-scale incidents, a special staff unit with ad-hoc specialists from the partner organisations and from the administration assumes command. If several partner organisations are deployed over a longer period, this staff unit in which the partners are represented is put in charge of command, coordination and management, directed by a chief of staff who reports directly to the relevant authority.

Increase of readiness and "build up" principle

With rising hazard level (for example increased radioactivity or the threat of armed conflict), the Confederation, cantons and municipalities, each at their own level of competence, must increase the readiness of alert systems for the population, of the managing bodies, partner organisations and protective structures, in timely and adequate manner. If there appears to be a rising threat of armed conflict, the government (Federal Council) and Parliament may decide to 'build-up' civil protection resources, within the assumed advanced warning period of several years. This would primarily require measures relative to personnel (for example raising the age to which persons do compulsory service), training and material resources.

Subsidiary back-up by army resources

According to the subsidiarity principle, the authorities in charge may re-quest military back-up. In principle, civil authorities may request military aid only if and when joint cantonal and regional civil protection resources are exhausted, or non-existent (except for spontaneous assistance). The army may provide subsidiary protection services (security, for example), military disaster relief and general back-up services, such as road or airborne transport, or engineering tasks.

Defending against and preventing nuclear, biological and chemical hazards

NBC protection covers all measures to defend against and prevent nuclear (N), biological (B) and chemical (C) threats and hazards. These include prevention efforts and the preparation of protective measures, as well as reconnaissance, protection from contamination and infection, decontamination and medical treatment when such an incident occurs. The aim is to minimise the impact of NBC incidents on the population, animals and the environment.

Release of dangerous substances

An NBC incident is defined as the unauthorised release of dangerous nuclear (N), biological (B) or chemical (C) substances. The release of such material can either be unintentional (accident) or deliberate (criminal or terrorist motives). They can be further classified according to type of incident:

- Nuclear: the release of ionising radiation and radioactivity;
- Biological: the release of pathogenic organisms (i.e. those capable of causing disease) or their metabolic products;
- Chemical: the release of poisonous gases, liquids or solids.

ABC - NBC - CBRN - CBRNE - CBRNNE

In addition to the acronym NBC commonly found in English-language texts, the acronyms ABC (atomic, biological and chemical) and CBRN (chemical, biological, radiological and nuclear) are also widely used. Radiological and nuclear (or atomic) threats differ in terms of the source of radioactive contamination. A nuclear (or atomic) threat involves the detonation of nuclear weapons and the after-effects. On the other hand, a radiological threat involves other contamination sources, principally in the form of a radioactive dispersion device ("dirty bomb"). In recent years, the use of the acronym CBRNE, where "E" stands for "explosives", has become more widespread due to the fact that the deployment of NBC weapons always, or almost always, involves some type of explosive. The second "N" in the acronym CBRNNE stands for "narcotics". Given that narcotics and psychoactive substances, such as fentanyl, are also classified as "non-lethal chemical weapons", these could present an additional NBC threat.

2. Description of IDMS

National Emergency Operations Centre NEOC

Federal centre of expertise for exceptional events

The National Emergency Operations Centre (NEOC) is the federal centre of expertise for exceptional events. It can be contacted around the clock, 365 days of the year, and can be mobilised within hours. The NEOC is a division of the Federal Office for Civil Protection (FOCP).

Federal Reporting and Situation Centre

One of its tasks is the management of incidents involving real or suspected increases in radioactivity, large-scale chemical accidents, overflowing or rupturing of dams, as well as risks

related to both satellite re-entry and natural hazards. In any event involving radioactivity, it is charged with ordering immediate measures to protect the population. Regardless of the type of emergency, the NEOC is the first point of contact for the cantons on all civil protection issues. Furthermore, in 2007 the NEOC was commissioned to run the federal Reporting and Situation Centre (MLZ). The necessary networks and instruments are constantly improved.

III. Crisis Management

4. Risk assessment

a) Program Risk Assessment

IV. OFFICE (Call center)

13. Technical equipment

National coordination

Events that cause damage must be brought under control on site and near to the population affected. Therefore operational responsibility for civil protection lies first and foremost with the cantons and municipalities. The Confederation sees to the coordination of civil protection services and defines its fundamental aspects. For events with a national impact, the Confederation coordinates the deployment of the relevant partners and takes over responsibility for managing the situation.

Since 2003

The Federal Office for Civil Protection FOCP supports the cantons and municipalities as well as the partner organisations in their civil protection activities. With the creation of the FOCP in 2003, all areas of the Federal Department of Defence, Civil Protection and Sport DDPS, which specialise in civil protection issues were grouped together. This restructuring reflects the growing importance of civil protection.

Business divisions

The FOCP has around 300 staff and its offices are spread over several locations. Its headquarters, directorate, as well as the business divisions - Planning and Coordination, Training, Infrastructure, and Support - are located in Berne. The latter is the FOCP internal service centre covering IT, Commercial Services, Logistics and Security, Communication and Language Services.

14. Main tasks

The mission of civil protection is to protect the population and its vital resources in the event of disasters, emergencies and armed conflict. Civil protection provides management, protection, rescue and relief, and contributes to limiting damage and coping with it. To fulfil its mission, civil protection assumes the following tasks:

- It ensures that the public is informed of hazards, protective possibilities and measures
- It warns and alerts the population, and issues instructions on how it should act

- It provides management
- It coordinates the preparations and deployment of the partner organisation
- It ensures readiness appropriate to the time and situation, and 'build-up' when required

15. Organization
    1. Communication connections
    2. Information connection
    3. Systems for monitoring
    4. System for early warning to the population

Alerting and informing the population

Fast flow of information is essential

Disasters can occur with very little advanced warning and sometimes with none at all. This is why it is so important to ensure a fast flow of information and to alert the population on time.

National Emergency Operations Centre

As a general rule, the National Emergency Operations Centre (NEOC), a division of the Federal Office for Civil Protection, is in charge of raising the alarm. The NEOC is the federal centre of expertise for exceptional events, in particular hazards arising from increased radioactivity as the result of an incident in a nuclear power plant or laboratory or due to a transport accident. Other examples of exceptional events include large-scale chemical accidents, dam bursts and hazards associated with satellite re-entry.

Cooperating with the authorities

In its role as a centre of expertise, the Federal Office for Meteorology and Climatology (MeteoSwiss) is in charge of warning the authorities and providing the public with generally applicable recommendations on what to do in the event of hazardous weather conditions, such as gale force storms and heavy rainfall. It works closely with the NEOC. As a centre of expertise, the Federal Institute for Snow and Avalanche Research (SLF) is responsible for warning the authorities and providing the public with generally applicable recommendations on what to do in the event of an avalanche risk. Dam operators are responsible for raising the Water Alarm. In principle, all competent authorities can and are authorised to sound the alarm in the event of a local/regional incident. The cantonal police must be contacted immediately when the siren is sounded.

Sirens

Since most disasters tend to be of local or regional scope, the entire population of the affected area must be systematically alerted and notified. Switzerland has a nationwide siren network. In cooperation with the cantons, municipalities and dam operators, the Federal Office for Civil Protection aims to ensure that the warning system is state-of-the art and that it is operationally ready at any time. To this end, all sirens throughout Switzerland are tested once a year.

Disseminating information and instructions

On hearing the "General Alarm", the population must immediately turn on the radio. To reach the public via radio throughout the year and at any time of the day or night, the Swiss Broad-casting Corporation (SRG SSR) uses the ICARO system. All cantonal police operations centres are also linked up to this system.

16. Subsystems

V. Forces for crisis response

1. Institutions

Five partner organisations

The civil protection system must ensure that the five partner organisations: the police, the fire, health care and technical services, as well as the protection & support service (P&S) cooperate effectively. Each of the five civil protection partner organisations is in charge of its particular domain. They support each other in the execution of these tasks.

Their tasks

The following pages outline the partner organisations and the tasks they are entrusted with in civil protection, except for those arising from everyday events. If you would like to go into detail about Civil protection concept in Switzerland, just follow the link leading you to the corresponding pages (links on the right).

Reforms of CP partner organisations

All partner organisations are currently undergoing a reform. For the police this reform is linked among other things to a project to review Switzerland's internal security system "USIS". The fire services launched their reform with the "Feuerwehr 2000 plus" concept. The health services must adapt to current conditions, and the technical services are reacting to privatisation. Only the reform of P&S service will be discussed below, in which the Confederation - in close cooperation with the cantons - will have a significant say.

Police

Maintaining public order and security

Within the civil protection system, the police is in charge of maintaining public order and security, one of the state's main tasks. The professional cantonal and municipal police forces are the resources that assume this task.

Cantonal responsibility

Issues relative to personnel, organisation, equipment, training and financing of the police are settled at cantonal level.

Cooperation with the other CP partner organisations

The police is a primary intervention resource. Its cooperation with the fire and first aid services is a routine matter. P&S service may be called upon to cope with temporary overloads and for long-term operations; they perform tasks that do not require them to bear arms, such as traffic control.

Fire services

Rescue and general damage protection

The fire services are in charge of rescue and general damage protection, including fire fighting and coping with basic damages. They fulfil other tasks, such as fuel, chemical and radiation protection. The cantons transfer certain tasks to special fire service units, which are specially trained and equipped to deal with them.

Cantonal responsibility

Issues relative to recruitment and personnel, organisation, equipment, training and financing are settled at cantonal level. The fire services see to it that they are adequately equipped to cope with their tasks. Cantonal property insurance and/or the cantons and municipalities cover the costs of requisite measures according to their competence.

Health care services

Medical care

The professional health care services provide the population and the intervention services with medical care, including precautionary measures and psychological support.

Cantonal responsibility

Issues relative to personnel, organisation, equipment, training and financing of the health services, including rescue and first aid, are settled at cantonal level. The cantons must establish the necessary structures and provide the resources. They decide what additional resources (personnel, medication, equipment, protected facilities for patients, and others) - also those of the P&S units - are to be put on stand-by for the event of a disaster or emergency.

Cooperation with the other CP partner organisations

The first aid services are primary intervention resources. Cooperation with the police and with the fire services is routine. Specially trained P&S units may be called up when necessary.

Protection and support service (P&S)

Spectrum of tasks

The P&S service must fulfil the following tasks:

- Spectrum of tasks
- Providing the protective infrastructure (shelters, etc) and the resources needed to alert the population
- Caring for persons in need of protection and those made homeless

- Protecting the country's cultural property
- Backing up the other partner organisations, particularly in the event of disasters and emergencies
- Reinforcing management support and logistics • Repair
- Other operations for the benefit of the community

VI. Training in IDMS

Training FOCP

Educating and training

The Federal Office for Civil Protection FOCP coordinates joint training activities among the partner organisations and the army. It also supports the cantons with training their joint staff units. The FOCP sets down the regulations and develops training documents. It also trains command units and Protection & Support (P&S) training staff, as well as P&S officers and specialists. In addition, it offers courses on security policy. The FOCP has a training centre in Schwarzenburg.

LITERATURE

AND

INTERNET RESOURCES

№	Name of document	Organizatio n	Year	Web-address
1.	The SIPROCI project and its result	Project part-financed by the European Union	March 2007	www.siproci.net
2.	Emergency Alert System (EAS) USA	Public Safety and Homeland Security Bureau		http://transition.fcc.gov/pshs/services/eas/
3.	Hospital Emergency Incident Command System	San Mateo County Health Services Agency Emergency Medical Service	June, 199	http://www.heics.com/HEICS98a.pdf
4.	Swiss Civil Protection	Web site of Swiss Civil Protection		http://www.bevoelkerungsschutz.admin.ch/internet/bs/en/home/das_babs.html
5.	The Civil Protection System in Serbia	Jefferson Institute	August 2008	http://www.jeffersoninst.org/sites/default/files/Civil%20Protection%20System%20in%20Serbia_0.pdf
6.	Civil Protection in Iceland	Web site of Civil Protection in Iceland		http://www.almannavarnir.is/displayer.asp?cat_id=133
7.	Rescue Services in Finland	Ministry of the Interior Department for Rescue Service	2010	http://www.pelastustoimi.fi/wp-content/uploads/2010/06/rescue_services_in_finland.pdf
8.	IDMS Integrated Disasters Management System	Swift Works		http://www.swiftworks.com.au/index.php?option=com_content&view=article&id=53&Itemid=73
9.	ATS-CEP Handbook 2010	Secretariat of the Antarctic Treaty	2010	http://www.ats.aq/e/cep_handbook.htm
10.	EU Civil Protection and the New Security Role of the Union	EU	2007	http://turin.sgir.eu/uploads/Britz-bremberg_&_britz_turin_conference_paper_070831.pdf
11.	Translating EU civil protection in the Nordic states – towards a theoretical understanding of the creation of European crisis management capacities	Malena Britz (Ph.D) Department for Security and Strategic Studies Swedish National Defence College	2007	http://aei.pitt.edu/7714/1/britz-m-11d.pdf
12.	International handbook on	Andreas Wenger,	2008	http://www.css.ethz.ch/publications/Risk_HB

	Risk analysis and management	Victor Mauer, and Myriam Dunn Cavelty Center for Security Studies, ETH Zuric		
13.	Vade-mecum of civil protection in European Union	European Commission , Directorate-general Environment	1999	http://ec.europa.eu/echo/civil_protection/civil/pdfdocs/vademec.pdf
14.	CEP Handbook 2010	Committee for Environment Protection	2010	http://www.ats.aq/documents/cep/handbook/CEP_Handbook_2010_e.pdf
15.	NATO Civil Emergency Planning and the South Caucasus	Martin Howard, NATO Assistant Secretary General for Operations	April 2009	http://pdffinder.net/NATO-Civil-Emergency-Planning-and-the-South-Caucasus.html
16.	CRN REPORT Focal report 4 Critical infrastructure protection	Crisis and Risk Network (CRN) Center for Security Studies (CSS), ETH Zurich Commissioned by the Federal Office for Civil Protection (FOCP	2008	http://www.bevoelkerungsschutz.admin.ch/internet/bs/de/home/themen/ski/publikationen_ski.parsys.71944.DownloadFile.tmp/focalreport1.pdf
17.	Joint Analysis Handbook	Joint Analysis and Lessons Learned Centre	2007	http://www.jallc.nato.int/newsmedia/docs/Joint_Analysis_Handbook_3rd_edition.pdf
18.	Nato Science For Piece – Programme Project Management Handbook	NATO	2006	http://www.nato.int/science/information_for_grantees/handbook/doc/handbook_full.pdf
19.	International CEP Handbook 2003	Swedish Emergency Management Agency	2003	http://www.ispro.it/wiki/images/c/c4/Emergency_Planning_in_the_NATO.pdf
20.	International CEP Handbook 2009	Swedish Civil Contingencies Agency	2009	http://www.straz.gov.pl/page/file.php?id=32040

21.	NATO CALS Handbook Continuous Acquisition and life-cycle support	NATO CALS Office (NCO)	2000	http://www.dcnicn.com/ncmb/nch_june-2000/Pdf/NATOCALS_Handbook_1_June%202009.pdf
22.	Civil Protection Systems in the Baltic Sea Region	University in Helsinki	2005	http://iaemeuropa.terapad.com/resources/8959/assets/documents/CP%20in%20Baltic.pdf
23.	The NATO Handbook Chronology A Companion Volume to the 50th Anniversary Edition of the NATO Handbook	Office of Information and Press, NATO – 1110 Brussels, Belgium	1998	
24.	NATO Handbook	Office of Information and Press, NATO – 1110 Brussels, Belgium	2001	
25.	International CIIP Handbook 2004	Swiss Federal Institute of Technology Zurich	2004	http://www.css.ethz.ch/publications/CIIP_HB_04.pdf
26.	International CEP Handbook 2006	Swedish Emergency Management Agency	2006	http://www.straz.gov.pl/data/other/cep_handbook_2006.pdf
27.	Handbook for JFTC Personnel	Joint Force Training Centre	2009	http://www.jftc.nato.int/General%20Information/JFTC%20Handbook%20(FEB%2009)%20(Unclass).pdf
28.	Public Affairs Handbook	NATO	2010	http://www.au.af.mil/pace/handbooks/pa_handbook_nato.pdf
29.	Danish Emergency Management Agency	DEMA	2011	http://www.brs.dk/uk/emergency_management/danish_national_emergency_management_organisation.htm
30.	Essentials of Management	Joseph L. Massie	1987	
31.	UN INSARAG Guidebook	International Search and Rescue Advisory Group	2011	http://www.unocha.org/what-we-do/coordination-tools/insarag/overview http://ochanet.unocha.org/p/Documents/INSARAG%20Guidelines%202011-Latest.pdf
32.	For a European Civil Protection Force: European aid	Reported by Michel Barnier and Former French Minister of Foreign Affair and former member of European Commissio	May 2006	http://ec.europa.eu/archives/commission_2004-2009/president/pdf/rapport_barnier_en.pdf

		n		
33.	Civil protection and Crisis Management in the European Union	House of Lords; European Union Committee	2009	http://www.publications.parliament.uk/pa/ld200809/ldselect/ldeucom/43/43.pdf
	Humanitarian Aid and Civil protection	European Commission		http://ec.europa.eu/echo/civil_protection/civil/links_en.htm
34.	European Commission, Humanitarian Aid & Civil Protection	http://ec.europa.eu/echo/index_en.htm		
35.	The Vademecum gives a general overview of the measures taken by EU Member States as well as at EU level to deal with disasters	http://ec.europa.eu/echo/civil_protection/civil/vademecum/menu/6.html		
36.	Global Platform for Disaster Risk Reduction	http://www.preventionweb.net/globalplatform/2011/about/		
37.	Prevention Web	http://www.preventionweb.net/globalplatform/2011/about/		
38.	Global Assessment Report on Disaster Risk Reduction 2011	http://www.preventionweb.net/english/hyogo/gar/2011/en/home/download.html		
39.	CRED - Centre for Research on the Epidemiology of Disasters	http://www.cred.be/		
40.	Eur-lex	http://eur-lex.europa.eu/bg/index.htm		
41.	Vade-mecum of Sivil Protection in the European union	http://ec.europa.eu/echo/civil_protection/civil/pdfdocs/vademec.pdf		
42.	Swedish Civil Contingencies Agency	https://www.msb.se/en/?ResetTargetNavigation=true		
43.	International CEP Handbook 2006 Published by the Swedish Emergency Management Agency (SEMA) Copies can be ordered from SEMA.	http://www.straz.gov.pl/data/other/cep_handbook_2006.pdf		

44.	Central Intelligence Agency	https://www.cia.gov/library/publications/the-world-factbook/
45.	Since 1988 the WHO Collaborating Centre for Research on the Epidemiology of Disasters (CRED) has been maintaining an Emergency Events Database EM-DAT. EM-DAT was created with the initial support of the WHO and the Belgian Governmen	http://www.emdat.be/

and other…