



# Single National Emergency Calls System



112 Roundtable – Bucharest, Friday, 1th of July 2011





## European Legislation

The requirements regarding this service have been defined by:

- Decision 91/369EEC from 29 July 1991, concerning the implementation of a single European emergency number;
- > Directive 98/10/EC of the European Parliament that establishes :
  - 112 number will be free of charge and implemented by all operators;
  - will be introduced along with the already existing national numbers;
  - the access to 112 number will be possible from any operational phone.



## Universal Service Directive no. 2002/22/CE - art. 26



- ➤ 112 is available as additional to the other national emergency numbers, to all the end users of the Public Switched Telephone Networks including those using public pay phones;
- > 112 calls will be appropriately handled by the emergency system using the existing network technologies;
- For all the 112 calls, the operators of the public telephony network will make the caller's location information available to the authorities whereas technically feasible;
- The citizens will be appropriately informed on the 112 number existence;





## Romanian Legal Framework

- Law no. 304/2003 of the universal service
- ► E.O. no. 34/2008 on Single National Emergency Call System organization and operation;
- Law no. 160/2008 for the approval of E.O. no. 34/2008;



















Each agency had its own emergency number;

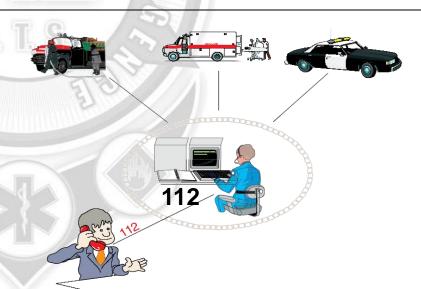
Reduced support for cooperation among agencies;

No ANI/ALI (automatic number and address identification);

No possibility to view the resources;

No mutual procedures

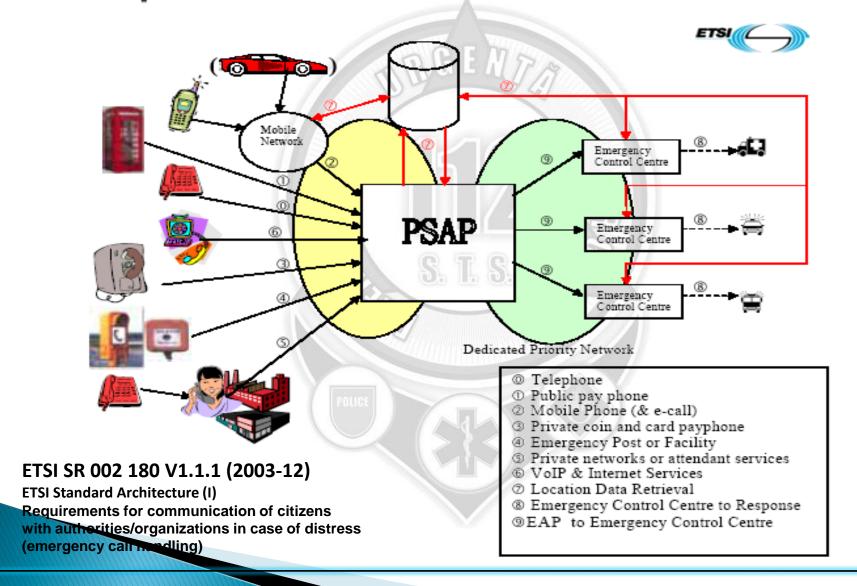
2004







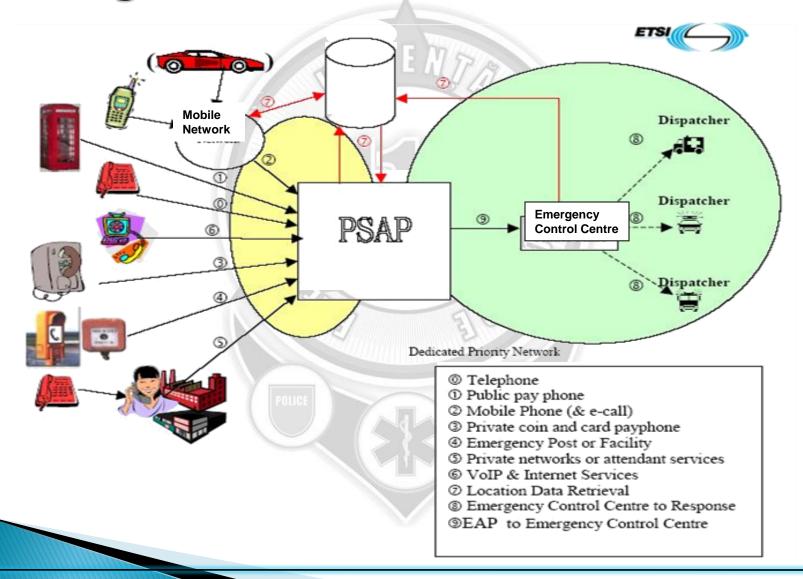
## Separate Control Centres







## Integrated Control Centres







## Implementation at national level

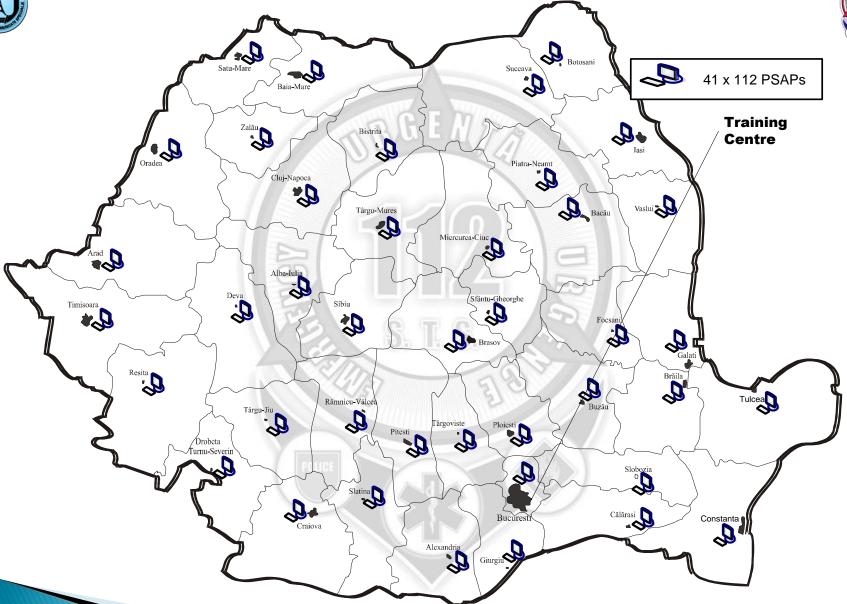
JUNE 2004 - MARCH 2005

## Functional stages

- Voice and data communications;
- Populating the databases with specific data to each agency and the competence areas;
- Activities dispatching and control;
- Post processing data.



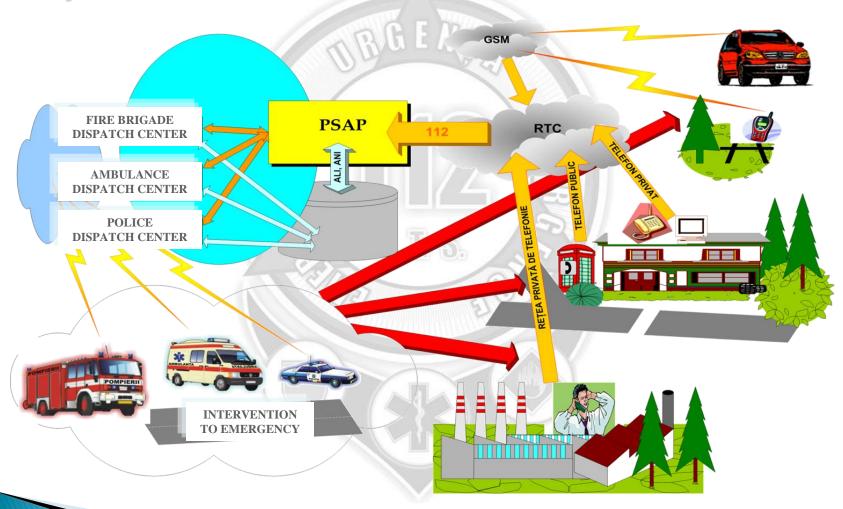






## Single National Emergency Calls System Structure







## Description



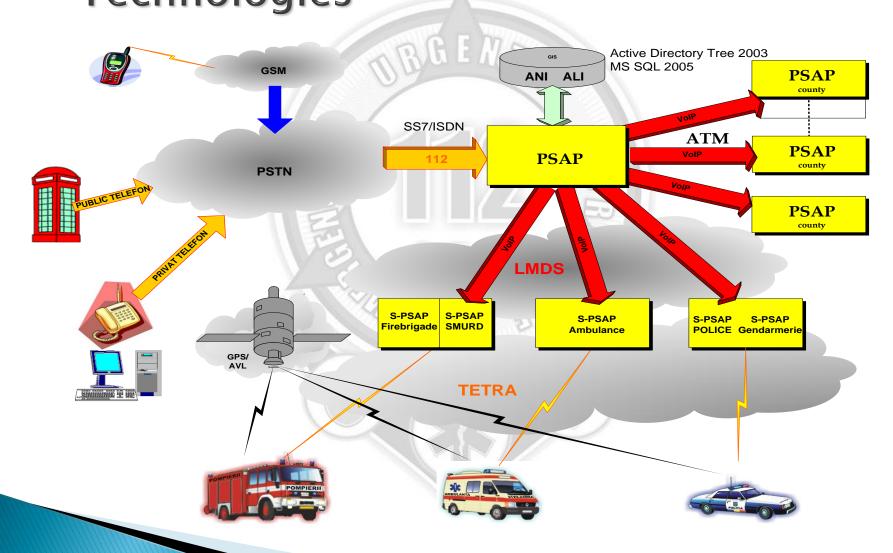
## The Single National Emergency Call System112 (SNECS) consists of:

- One Single Center for emergency calls in each of the 40 counties and two others (main and backup) in Bucharest;
- One emergency dispatch center for each of the 4 emergency agencies (Police, Ambulance, Fire Brigade and Gendarmerie) in each of the 40 counties;
- A single centralized database for Automatic Number Identification, Automatic Location Identification and a GIS application, working offline and updating through replicating with every PSAP;
- Remote Workstations;
- ATM-base WAN data network interconnecting the emergency call centers;
- MAN Local Network in each county interconnecting the 112 Center with the dispatch centers of each emergency agency;
- TETRA digital radio network for the emergency agencies;
  - Emergency agencies' VHF/UHF radio conventional networks.



System Architecture and Technologies







## Advantages



- Interoperability at databases level
  - Index
  - Digital map
  - Competence areas
  - Resources
- Specific references
  - XML Interface open for different types of dedicated applications
  - Reporting instruments and statistics
  - Action plans
- Multilinguistic Service





## Functions of 112 system



#### 112 Operator

- data acquisition
- Cooperation necessity

(predefined)

#### **Dispatcher**

- Caller localization event
- advices
- questions



#### **Calls receptor**

Particular information

#### **Dispatcher**

- Resources allocation general events
- Case surveillance
- Cooperation organization
- Action plan usage

#### Post processing

- reports, statistics
- Post event data input
- Archive



#### **Calls receptor**

Particular information

#### **Dispatcher**

- Resources allocation
- Case documentation
- Action plan usage

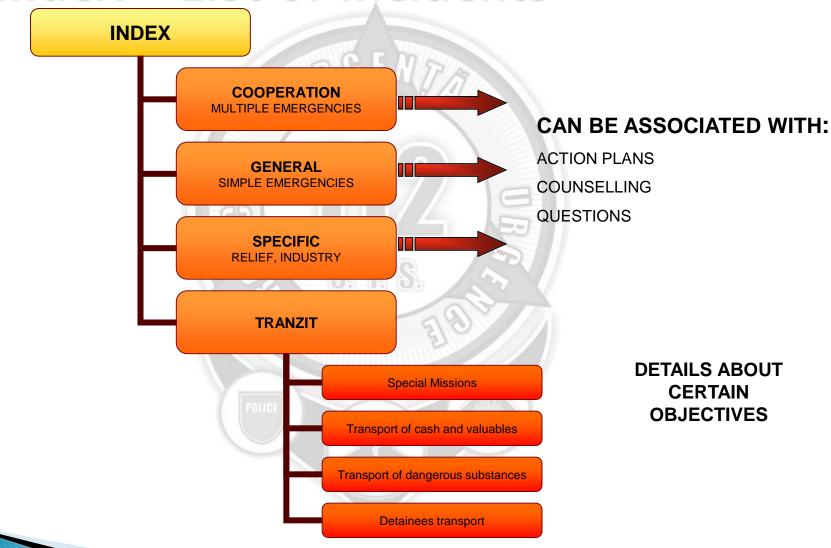
#### Post processing

- Data input
- Resources programming





## Index - List of incidents



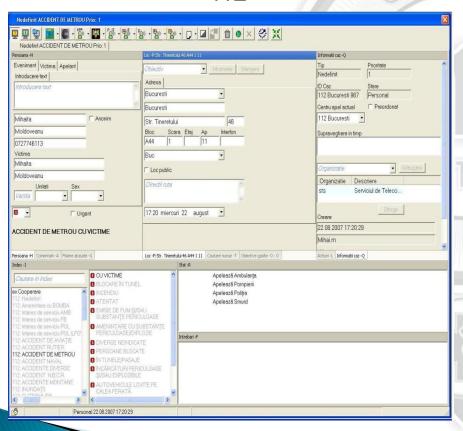


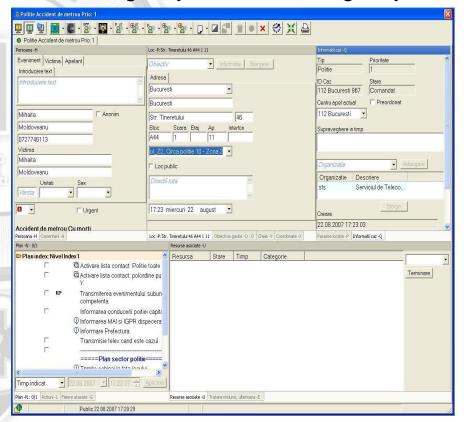
### Case view



112

#### **Emergency Intervention Agency**







## **Action Plan**



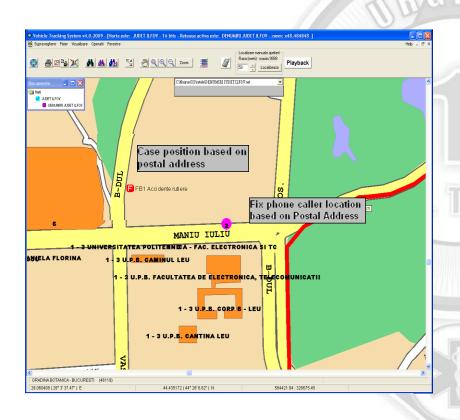
Index Plan: traffic accident	
<u></u>	🖀 Call Police Ward no. 19
	<b>不</b> 價 Contact list activation: police public
	order hall Y
☐ 103°	<b>₩</b>
	needed to police ward, too
	Send the information to the police leadership
	📾 Contact list: All police wards
	①—————————————————————————————————————
	===== Sector plan Police =====
	Send the crew on the scene

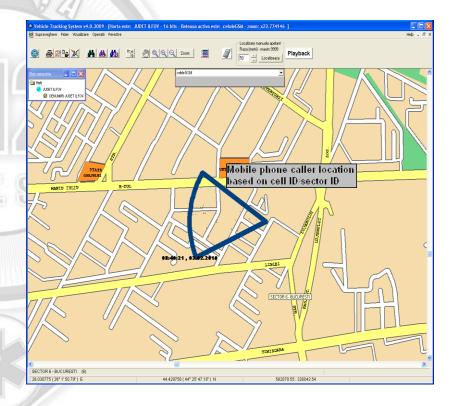






#### Case location and caller position



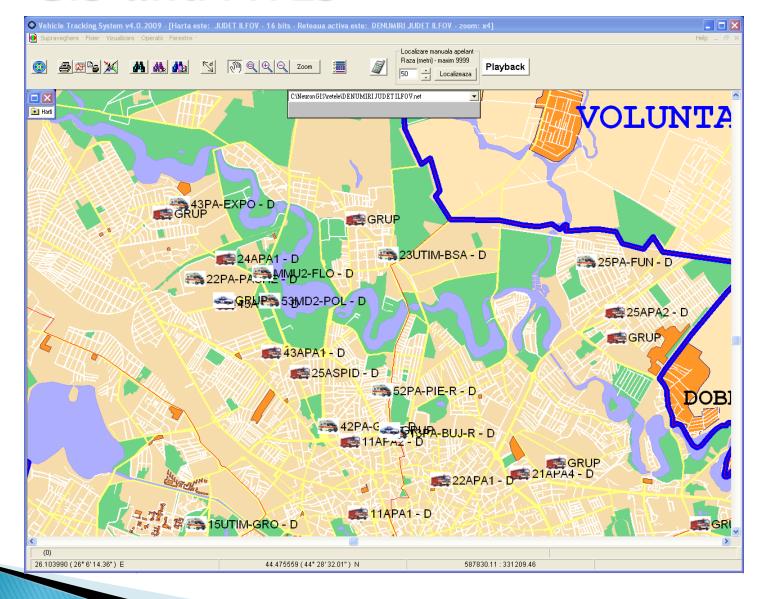




### **GIS** and AVLS

#### **RESOURCES**

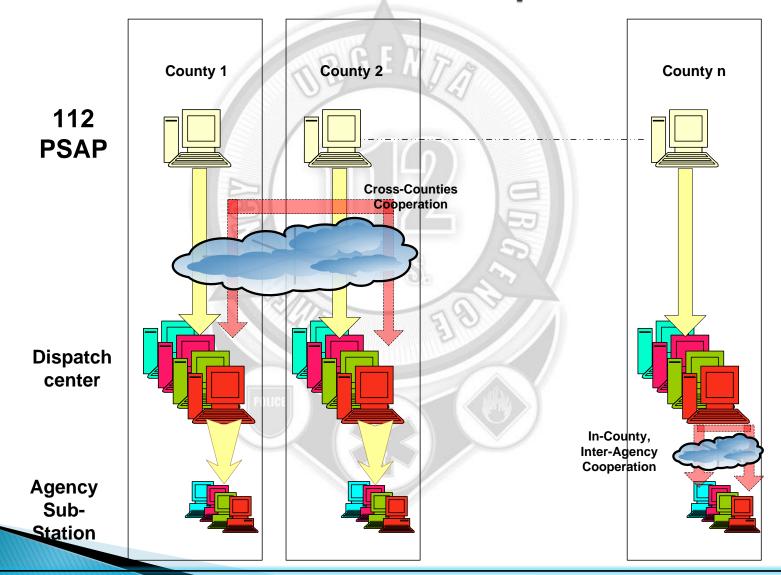








## Cross-Counties - Cooperation









#### European Consortium for the eCall Implementation Pilot Project

- Use of common European standards
  - http://ec.europa.eu/information\_society/activities/esafety/ecallstandards
- Built on the work of the "European eCall Implementation Platform"

#### **Funding instruments**

- Pilot of Type A
- 5 M€ of EU contribution
- Accelerating the deployment of the pan-European eCall service





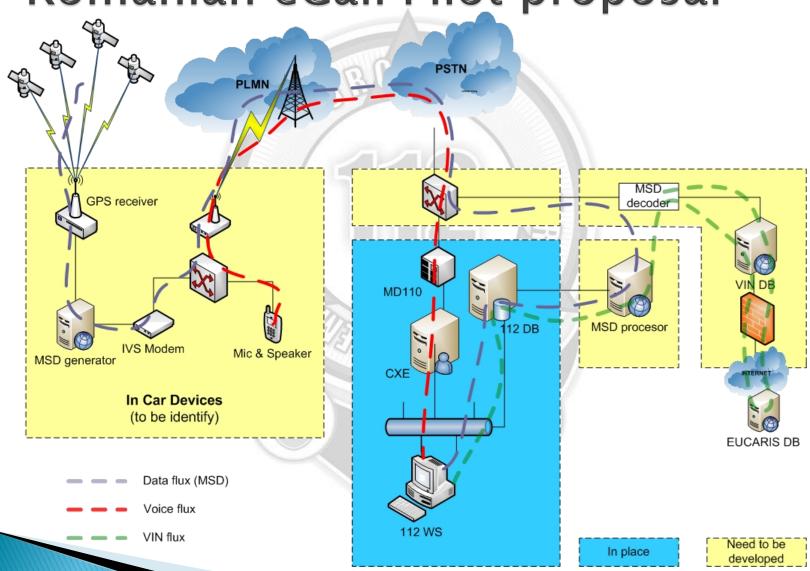
## eCall standardization status

Draft En 090316 Pan-European ecall Operating requirements (112-only) WI 278243 High Level Applications Protocols 1st Level PSAP ETSI TS 122 101 Voice + MSD on 112 In-band modem trx Car in incident ETSI TS 126 267 eCall Data Transfer 15722 ETSI TS 124 008 General description MSD Table 10.5.135d ETSI-MSG & 3GPP, Chair: E. Barck eCall Flag CEN TC 278 WG 15. Chair Bob Williams ETSITS 126 268 eCall Data Transfer ISO/EN 24978:2009 ANSI-C reference Code Data registry procedures ETSI TS 126 269 Conformance testing ETSI TS & TR 126 969 eCall Data Transfer Charecterisation Report http://ec.europa.eu/information\_society/activities/esafety/ecallstandards





## Romanian eCall Pilot proposal





## **Interfaces**



