

COIM-BEST MAIN CONTRIBUTIONS FOR A BETTER JOINT RESPONSE PERFORMANCE

Jordi Sans

Responsible for research at the Public Safety Institute of Catalonia

Robert Abelló:

Researcher at the Public Safety Institute of Catalonia

Gerard Newell

Researcher at the Public Safety Institute of Catalonia

INTRODUCTION:

This article exposes the findings of the two year European Project COIM-Best (Coordination Improvement by Best Practices) we have been working on since 2009. At present we are in the final content dissemination phase. This project was financed jointly by, the European Commission - DG Home Affairs programme: Prevention, Preparedness and Consequence Management of Terrorism and Other Security threats in which the Public Safety Institute of Catalonia participated, together with the Universitat Politècnica de Catalunya, the Global Law Enforcement Institute of Italy and Fondazione FORMIT (Fondazione per la Ricerca e la Migrazione della Tecnologie) also from Italy, which coordinated the project.

Improving coordination between multiple agencies is a clear objective for the optimization of public safety systems' preparation to cope with critical situations in major emergencies. In recent years¹, states are becoming more concerned regarding terrorist attacks and major emergencies; therefore, the need for a jointly response in emergencies situations has become a must. This includes emergency responders from different countries and different organizations; thus, it is not something easy to manage. In this regard, the COIM-Best project has researched on the improvement of emergencies management introducing the best practices available.

When referring to the consequences and scenario that stem from a terrorist attack, it comes up that the same scenario could be caused by an accident (chemical, nuclear,

¹ September 11th, 2001 in USA, March 11th, 2004 and July 7th, 2005 in London.

industrial, transport...), therefore, even if a terrorist attack caused the emergency the response is very similar². For this reason the process to improve and train the responders will be useful in any critical situation no matter what caused it.

This fact highlights the importance of safety and security³ and how these two aspects are basic to prevent accidental or malicious incidents, moreover, improving coordination, also helps professionals from both fields and it is a way to improve the response to any kind of incident.

Emergency responders normally act under the so called daily emergency, several types of emergencies are frequent and each emergency service knows how to act in each situation due to the experience gained in the field. However, certain emergencies may go beyond this level and further systems such as civil protection may need to be activated. At this stage is when problems such as lack of coordination or communication issues may arise.

In general terms, big emergencies threaten people's lives, material goods and the environment, and they normally occur suddenly, therefore, it is not possible to predict when the big emergency will happen, but, it is possible to be prepared for the incident, to reduce the immediate consequences and to improve the response undertaken. Two main ways of reducing the consequences arise: prevention and response preparedness. In this paper we deepen in the preparedness as it is the core of the project and it is always necessary, even for well known and prevented emergencies such as, an emergency in a critical infrastructure⁴ or major hazards⁵.

Each country is aware on its particular risks and emergencies which can affect them mostly, moreover, the whole emergency responders structure is scaled and designed to the needs of each area. For instance, in Catalonia big wild fires⁶ are the main concern and firefighters are structured baring in mind this fact, Andorra⁷ is better

² "Professionals in charge of responding to terrorist attacks today, have been for decades the same people in charge of responding to disasters of any sort: firefighters, police officers, emergency managers, planners, engineers, insurers and government officials". Professor Dennis Mileti at the University of Colorado: Full interview: http://www.eurekaalert.org/pub_releases/2002-09/uoca-pft090502.php Visited on 24/5/1012

³ Sans Pinyol, Jordi; La normativa sobre seguretat contra incendis en els edificis i indústries. Present i futur Revista Catalana de Seguretat Pública num. 18, April 2008 (pag. 173-194)

⁴ Also see: *Beyond Normal Accidents and High Reliability Organizations: The Need for an Alternative Approach to Safety in Complex Systems*. Authors: Karen Marais, Nicolas Dulac, and Nancy Leveson

⁵ *Council Directive 96/82/EC* Directive extended by the Directive 2003/105/EC also called Seveso II

⁶ Josep Arola, Head of the Management Unit of the Fire fighters Region of Manresa- Interview num. 7, interview reports.

⁷ Victor Naudi, Minister of Interior at Andorra – Interview num. 2, interview reports

prepared against natural risks and rescue operations due to the characteristics of the country, France⁸ against nuclear emergencies and Japan⁹ against earthquakes. The positive fact about this is that if we could merge all the knowledge and the specialized responders, all the different types of emergencies would be covered but the negative fact is that every region has a different structure and emergency responders are tailored to different situations, therefore coordination and joint response operations are harder to perform.

THE PROJECT

The structure of the project is: a review of the state of the art and interviews to experts in Europe to find the best practices available, common concerns and solutions.

The main fields studied are:

- Emergency management, legal and institutional context.
- Emergency scenarios within the focus of the project
- Principles of the coordination among agencies
- Study of the actors involved in the management and emergency response
- Methodologies for emergency management training
- Methodologies for the evaluation of training activities
- Case studies

When studying cases, the Community mechanism for civil protection¹⁰ appeared to be a huge source of information and an ideal background to test the relations among responders and possible coordinated action. These exercises mainly simulate big natural disasters and many agencies are involved due to the geographical situation or the severity of the incident. The scenario set by these exercises may seem complex and improbable but historically these are the incidents that mark history, these emergencies can be called black swan events¹¹ as they are unexpected events of large magnitude due to its consequence and their dominant role in history. Which one is the

⁸See <http://www.number10.gov.uk/news/declaration-on-energy/> after the Fukushima incident UK and France agreed on strengthening the international capacity to react against nuclear emergencies as they will not close down its nuclear power stations.

⁹See <http://www.guardian.co.uk/world/2011/mar/11/japan-earthquake-preparation> Japan's earthquake preparation

¹⁰ http://ec.europa.eu/echo/civil_protection/civil/prote/mechanism.htm visited on 30/12/12

¹¹ Theory developed by Nassim Nicholas Taleb in the book The Black Swan: The impact of Highly Improbable, Ed. RandomHouse, EEUU, 2007

maximum risk to consider as possible? Any danger must be taken into account even if the probabilities are low? The answer could be a method that considers the consequences but, sets a limit where a very improbable event with severe consequences may be considered in the same way as a minor incident with high probability¹².

In the past years many accidents can be considered big emergencies or black swan events as mentioned before, for instance the nuclear incident at Fukushima, the tsunami at Indonesia, the Katrina hurricane and many more. Once the responders have faced the emergency it is of equal importance to recover as quickly as possible learning from possible mistakes and to prevent the consequences of the incident in a future event, in other words, to be resilient.

THE INTERVIEWS

- Andorra Minister of Interior
- European Commission, Directorate-General for Humanitarian Aid (ECHO) – The Community Mechanism for Civil Protection (Belgium)
- Ministerium des Innern des Landes Brandenburg – Potsdam (Denmark)
- Police Academy of the Federal State of Brandenburg (Denmark)
- Frankfurt Fire & Rescue Service (Denmark)
- Manresa Region Firefighters – Forest fires (Spain)
- School for Prevention and Integral Safety (Spain)
- SISCOM – Sistema de Comandament (Spain)
- Fundación Fuego (Spain)
- General Direction of Civil Protection of Catalonia (Spain)
- Department of Communication and Information of the General Direction of Prevention, Fire Extinction and Rescues of Catalonia (Spain)
- Public Safety Institute of Catalonia – Firefighters training (Spain)
- T&Associats Consultants: Full-Scale Exercises (Spain)
- Full-Scale Exercise on the France-Spain Cross-Border High Speed Railway Tunnel – Case Study (Spain and France)
- Rhône Fire & Rescue Service – Civil Security Exercises (France)

¹² Tom Maddison: The UK approach to and use planning in the vicinity of chemical major hazard installations; Revista Catalana de Seguretat Pública, num. 23 monogràfic Risc i Territori; 2010, Ed: Institut de Seguretat Pública de Catalunya

- The French Academy for Fire, Rescue and Civil Protection Officers – CBRNE Risk (France)
- Rhône Fire & Rescue Service – Response to terrorist attacks (France)
- Rhône Fire & Rescue Service – Organization and Specific Risk Coverage (France)
- The French Academy for Fire, Rescue and Civil Protection Officers (France)
- Presidency of the Council of Ministers, (Italy)
- Scuola Superiore Sant'Anna (Italy)
- Civil Protection, Lombardy Region (Italy)
- The Netherlands Police Academy (Netherlands)
- Rotterdam-Rijnmond Seaport Police (Netherlands)

Next, the case studies analysed:

- EXODUS exercise, Rotterdam – Case Study (Netherlands)
- FloodEx exercise (Netherlands)
- Cross-border railway tunnel full scale exercise (France Spain)

All the interviews and the case studies had the same structure and followed a questionnaire to ease the posterior comparison and analysis of the data. In all the interviews several facts and opinions are common, all the agencies agree on the same simple problems, which concern the responsible persons of different organizations and emergency agencies and yet haven't been solved.

During the final workshop at Brussels, which took place on April 18th 2011, all these opinions were discussed and several good practices and lessons learned were proposed and debated.



After the interviews and the analysis of the current situation the COIM-Best project started one of the main contributions, a theoretical model for the training of actors who are involved in emergency responses. The model empathises on coordination improvement and how to implement it in the operative procedure of each organization.

The model is divided in 4 chapters:

ACTORS INVOLVED

During the project the coordination concept appears many times, first of all to address coordination it is necessary to know who¹³ must coordinate and the answer is the responders. Commonly there are three types of responders:

1. First responders: responsible for the main actions to tackle the emergency or its consequences, they are trained to perform first aid tasks, rescues, fire extinction, extrication, traffic control...
2. Cooperating responders: they are not members of any emergency service but they carry out other important tasks such as provide services, volunteers...
3. General public: it includes all the citizens who may contribute towards the emergency response but they could also have been victims.

These three types of emergency responders are common to all Europe and it is a starting point to deepen further.

THEORETICAL BASIS

Each responder has its own practical and theoretical training needs; therefore, the objectives must be set and tailored for each organization. However, there is minimum theoretical knowledge that is the basis for posterior training and specialization. These theoretical basis in the project are referred to as Relevant Training Subjects:

- **Multi-agency coordination** (it embraces the rest of subjects). As said by the title of the project, this aspect is the main focus of the project. The starting point for this process are the emergency plans and the action procedures, the responders must know what it is like to act jointly and improvisation should be unnecessary. The structures and the command system change considerably and, therefore, for a better joint performance, these changes need to be learned

¹³ In the case of the Catalan Civil Protection plans the performers are clearly defined in each action group. See PROCICAT:

<http://www20.gencat.cat/docs/interior/Home/Arrees%20dactuacio/Proteccio%20Civil/Plans%20de%20proteccio%20civil/Plans%20de%20proteccio%20civil%20a%20Catalunya/Documents/PROCICAT.pdf>

well in advanced and itemized into action procedures. There are other aspects which are common to multi-agency and non multi-agency responses such as:

- How to deal with personnel who is not used to emergencies
- The assistance to victims (primary victims, but also their relatives)
- Logistics
- Stress
- Media
- Politicians
- General public
- Gather evidence for the police

The key aspects are:

Emergency plans: each organization must design its own action procedures; however, they must be designed in accordance with the emergency plan which is common to all the responders. In terms of inter-agency coordination it must be general but it must deepen in the particularities of each scenario¹⁴.

Interoperability: to allow diverse systems and organizations to work together (inter-operate), it is basic to harmonize the work procedures of each organization. This is a major challenge to improve communication among agencies and to achieve a quick and well organised response.

Mutual trust: it is absolutely necessary for any multi-agency response to succeed. Trust can be achieved formally or informally¹⁵, depending on how the relation is established. For instance, a relation based on an exercise or joint emergency drill will be formal whereas a relation between two organizations which work in the same area and decide to arrange a meeting to know each other will probably be more informal. Both systems are good, positive and negative aspects may arise in each type of relation.

Cultural differences: can influence the way the incident is perceived and therefore different persons who are different culturally may react different in an emergency situation. This act affects both: responders and the general public¹⁶, who is affected by the emergency

¹⁴ Civil protection plans in Catalonia:

<http://www20.gencat.cat/portal/site/interior/menuitem.749d9d1d4de644df65d789a2b0c0e1a0/?vgnextoid=f7e16f437ded4210VgnVCM1000008d0c1e0aRCRD&vgnnextchannel=f7e16f437ded4210VgnVCM1000008d0c1e0aRCRD>

¹⁵ “Cooperation is possible between persons better than it is between organizations” Denis Giordan, Interview 17, interview reports

¹⁶ BeSeCu: Schmidt S. (Coord) and others (Behaviour, Security and Culture) – Final Report for the European Commission DG Home Affairs <http://www.besecu.de>

- **Command System** describes how each organization structures and implements its command functions. It is very convenient to avoid conflicts and mistakes regarding roles and responsibilities of each person. There are several basic aspects to consider in order to implement a command system:
 - **Unified command.** It requires a central authority for the decision making, the best example is the military command, but it is complex to apply this system to the civil field.
 - **Chain of command.** Distributing command and control must follow a logical chain. Information must be shared continuously and any information loop or cut must be avoided.
 - **Levels of command.** These levels are: strategic, tactical and operative. Different roles and responsibilities are assigned to each level.
 - **Scalability and modularity**¹⁷. It allows the command system and structures to adapt to the extent of the emergency. For this to happen, mindfulness¹⁸ to detect symptoms and external evidences is essential.

There are other aspects that threaten the command system. For instance, the **time limitation** adds a lot of chaos and uncertainty during the initial minutes of the response. The command system must be established, all the responders are mobilized and suddenly a lot of information must be managed and distributed correctly. This is very difficult and it is important to remember that the whole situation is dynamic and changes all the time. Another aspect is the **size of the emergency**; the command system must adapt to avoid the emergency from exceeding the command system response capacity.

The responders network and all the organizations included in the command system can set a very complex chart, therefore, it is basic to clarify the **exact roles** of each actor and to establish previously as many aspects a possible. In this regard, again, **mutual trust** may be **the key** aspect to assure a correct performance.

- **Internal communication.** The project establishes the following types of information used in emergencies: state information, operational information,

¹⁷ Bombers de la Generalitat de Catalunya; Guia Operativa 11.07. Sistema de Comandament, 2010

¹⁸ Karl E. Weick & Kathleen M. Sutcliffe; Managing the Unexpected: Resilient Performance in an Age of Uncertainty; Ed. Wiley & Sons, EEUU, 2007

resources information, management information, control information and information for the population.

The basic aspects to bear in mind regarding inter/intra agency communication are **interoperability**, not only technological, among all the actors involved, but also to use a common language and terminology. Another relevant aspect is the gathering, management and information custody, the needs of each actor should be identified and if the information is analysed using indicators each organization should be able to access directly the most suitable data. As it is described earlier in the document, each organization may have a different perception of the emergency due to its role and culture, therefore, it is necessary to create a **common picture of the operative scenario**. This means that efforts must be done to transmit correctly the situation and assure each actor interprets the same. Finally, it is important to remind that communication is also essential for a correct performance and, if there were a failure the whole response may fail, therefore, all the systems must be **independent and redundant** to assure the system continues to work even if an unexpected incident disables part of the communication system.

- **External communication.** It is mainly to provide updated information¹⁹ to the population, media and other interested people in an accurate and accessible way. This information is critical as it can save lives, for this reason, it must be treated like any other aspect of the emergency response. The external communication includes alerts, risk predictions, advises, and therefore civil protection has a prominent role if the emergency is caused by a natural disaster or if people must be evacuated or confined.

They key aspects necessary for good external communication are: firstly the use of a **friendly language** so that the general public understands the message; secondly, the **moment to inform**, because normally there is a delay between the exact moment when the information is provided and when the population receives the message, for this reason, the responders must know when it is the best moment to inform; thirdly, the responders must assure confidentiality and identity protection to all of those affected by the emergency. Finally it is important to keep the media and the population **well informed**,

¹⁹ In Catalonia, there are warnings and alerts issued by the Civil Defense and the Meteorological Service of Catalonia in order to inform the public about possible risks. See: <http://www.meteo.cat/servmet/SMR/index.html>

otherwise they will try to obtain information from other impartial sources and the whole external perception of the response will be confusing and consequently hindered.

- **Decision making.** Decisions can be taken by many parts of the system, decisions can be originated at operative, tactic or strategic level, by small or large organizations national or local... therefore it is important again to foresee all the different types of decisions and include them in the emergency plan. The lack of time, of information, the pressure to the responders, work overload, lack of tasks, group mentality, level of risk, complexity... may affect negatively the decision making process and consequently, provoke a conflictive coordination among the rest of organizations. Common sense and flexibility must be considered as important as hierarchy, in this regard, decisions are not always taken by who has more knowledge and this is something to avoid. The power to decide must migrate along the organization and the final decision must be taken by the unit directly involved in the incident.

There are key aspects which are essential to facilitate a optimal decision making process: firstly, the **previous knowledge and the situational awareness** (perception of the situation):

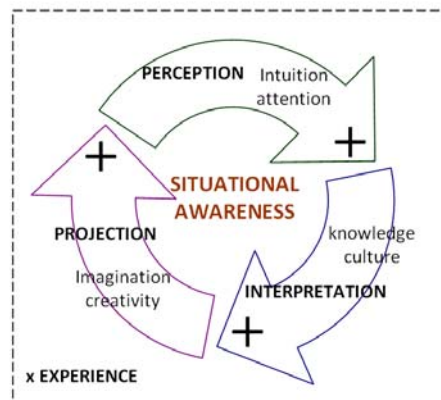


Figure 1 Diagram of the situation comprehension cycle. COIM-Best Final Report²⁰

Situational awareness is based on three main factors which complete the cycle²¹, first of all, intuition and attention perceive what is relevant, then knowledge and culture allow a proper interpretation of what is perceived and finally, imagination a creativity play a role in order to project and foresee what

²⁰ COIM-Best: Bisogni F. (Coord.), Abelló R., Cavallini S., Costanzo P., Fusco P., Gasperini G., Medina M., Lalla C., Roiha M., Sans J., Serna J., Coordination Improvement by Best Practices - Final Report for the European Commission DG Home Affairs.

²¹ Bombers de la Generalitat de Catalunya; Guia operativa 01.05 Comandament. Presa de Decisions

can happen and what must be done. This situational awareness must be a common practice among all the actors²² involved for an optimal performance.

Another key aspect for the decision making process is the **dynamic risk assessment**²³. It intends to reduce unnecessary risk exposure to responders by analysing quickly and continuously the situation and implement safety measures each time new information is provided or major command changes have taken place.

- **Leadership** is obviously a relevant training subject to improve any coordinated emergency response. Leadership is extremely related to a good decision making capacity. There are several aspects which have a strong repercussion on the capacity to lead such as, knowing how to provide a safe, positive, efficient and confident working environment for the emergency personnel. A good leader should also understand the existence of individual and cultural differences and should learn to manage them.

From the key aspects which the leader must handle, the following must be highlighted: the structure of the organization must be orientated to **team work**, tasks must be assigned depending on the knowledge and capacities and not on the hierarchy. **Stress** and other **psychological disorders** must be addressed and also put in common to strengthen the group's cohesion. **Debriefings** must be a common practice and the following question must always be answered: what can we do next time to perform even better? The leader has to **contact** with the rest of agencies and also the general public as he represents the whole team.

- **Resources management.** In any response to an emergency many resources are used, therefore, they must be always available and fast to provide. When talking about resources, it embraces many concepts divided into human and material resources: personnel, equipment, facilities, tools, vehicles, food, supplies and mechanisms. They are very variable in terms of status and availability.

It is necessary to know at every moment the availability of each resource, to clearly identify all the personnel who are involved in the emergency, their capacities and abilities. The same effort must be done regarding the material

²² Schraagen J.M., Huis M., De Koning L.; Information Sharing During Crisis Management in Hierarchical vs Network Teams, *Journal of Contingencies and Crisis Management* 18, no 2, 2010

²³ Bombers de la Generalitat de Catalunya; Guia operativa 01.05 Comandament. Presa de Decisions

resources, this is addressed by the logistics management and it must bear in mind the system will be under a dynamic, stressful and incessant scenario and it needs to be managed perfectly.

FROM THEORY TO PRACTICE:

Paulo Freire once said²⁴: “Theory without practice would be mere abstract thinking, just as practice without theory would be reduced to naive action”. Both parts are essential to ensure any learning process, a clear example of this way of learning is the “Learning by doing²⁵” methodology which equilibrates the need for new knowledge and the need to practice what has been learned (taught, learned, practiced).

It is common for the emergency service to participate in emergency drills undertaken in infrastructures, companies and facilities. Usually, these emergency drills are compulsory to meet all the requirements of the emergency plans but, however, these exercises are ideal to train the personnel and also to practice multi-agency coordination. During the project, it was decided to classify the exercises in discussion-based and operational based exercises but later a third group was added for technology based exercises.

Discussion-based exercises don't require deploying resources or mobilizing personnel, there are more orientated to familiarize the responders with the emergency procedures and protocols and debate about joint coordination. There are many different types of discussion-based exercises:

1. **Seminars:** It is based on the transmission of knowledge from an expert to an audience. In this type of training the trainees have a very poor participation.
2. **Workshop:** It includes formal debates and reflections for the participants to discuss and develop new ideas and procedures.
3. **Tabletop:** it exercises high command decisions, procedures and much more complex decisions. This exercise must be directed by an expert and it is necessary to use maps, plans, miniatures and all sorts of materials.
4. **Role game:** It is based on the tabletop exercise but it is much more realistic, timings are real and the whole performance is evaluated to analyse the

²⁴ International Journal of Education for Democracy, Dialogue on Paulo Freire, Vol 1, No. 1, September, 2007

²⁵ Educational theory which assumes that people remember and assimilate much better what they do or simulate. View Article No 8 Schank, Berman, and Macpherson (pag 161) Instructional-Design Theories and Models: A New Paradigm of Instructional Theory, Vol 2, Ed. Charles M. Reigeluth, New Jersey 1999.

response. All the interactions among the participants must be according to the real roles and any interaction with the exterior is done through the exercise conductors.

Operational based exercises are more complex and require deploying resources, both human and material. Normally, a previous meeting sets the plans, protocols, agreements and policies to clarify the roles and responsibilities of each organization.

1. **Functional.** These types of exercises are designed to test only certain aspects of the system. The communication systems, the alarms and commandment may be activated, but it is not intended to deploy expensive resources and vehicles.
2. **Drills:** In this case a real emergency scenario is reproduced and all the operative tasks take place. It is designed for one agency and the objective may be a practical training or a test for new materials and facilities.
3. **Full-Scale:** It involves all the personnel at operational and tactical level, material resources, vehicles, it activates plans and protocols and even the external communication is managed just like in a real emergency. The objective of full-scale exercises is to test a coordinated response and improve a future emergency joint response.

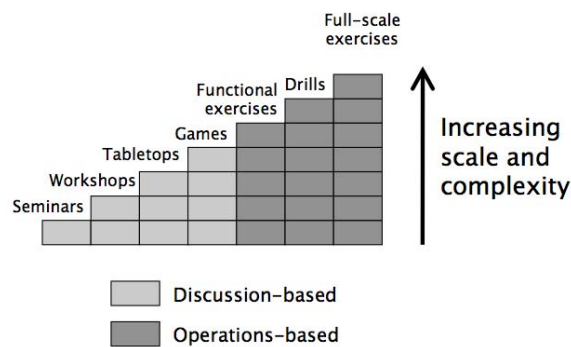


Figure 2: Scale and complexity of the emergency exercises.²⁶

These different types of exercises are set gradually, therefore, a full-scale exercise includes all the aspects tested and trained in all the other activities.

²⁶ Jackson B.A., McKay S., Preparedness Exercises 2.0: Alternative Approaches to Exercise Design That Could Make Them More Useful for Evaluating – and Strengthening – Preparedness. *Homeland Security Affairs*, Volume 7, EEUU 2011

CONCLUSIONS:

Major emergencies, and specially those which involve a joint response, may seem complex and hard to train, in this regard, the project has set general work lines and key aspects to improve these operations. The project has also established the basis which other studies can use to research further in certain aspects which the COIM-Best project analysed superficially.

At present there is a lot of information and knowledge regarding all the aspects which must be considered in emergencies, but it is necessary to adapt all this knowledge to the practical level. Each organization must detect its needs and deficiencies and define its objectives and the methodology to address them.

Organizations are formed by people; therefore, it is necessary to understand these persons and the relations among them because this factor varies a lot in each organization. Moreover, persons working together can be very different in terms of culture, education... the emergencies management plan for joint responses must not only consider this factor but also set a culture²⁷ which is transmitted through the whole organization.

The project highlights the importance of undertaking exercises to train the competences which are necessary to respond to major emergencies. It is also important to promote transparent communications among agencies to ease other organizations' team work as everyone knows at each moment what is the real situation and how they can be useful.

The benefits of undertaking joint exercises are not only operational, they also put in contact people from different organizations which don't usually work together, they stimulate mutual trust and, on the whole, assign names and faces to persons who are not in contact in every day work.²⁸

The objective of the project is also to allow the efforts that are already made to obtain better results:

²⁷ "Mutual knowledge of the organizational culture is a key aspect to consider in the preparation process of joint exercises" Interview n15, Interview reports, COIM-Best

²⁸ "Cooperation is easier between persons than between organizations" Denis Giordan, LT-Colonel Chef du Groupement Mulhous – Rhin. Interview 17, Interview reports

- To take all the opportunities to put into practice plans and response systems.
- To perform optimally in the exercises using best practices.
- To join the objectives of all the exercises instead of designing different exercises for different objectives.
- Arrange the timings so that these exercises can be incorporated to the training programmes of each responder.
- To assess and monitor all the actions in order to improve future operations analysing previous experiences.

Finally, the most ambitious objective is to slowly transfer this focus and all the best practices to the European level and establish a homogeneous model, which would make possible joint responses and coordination.

The COIM-Best project aims to contribute to the improvement of cooperation and coordination of the European authorities involved in emergencies response.

SPECIAL THANKS TO:

INTERVIEWEES:

Victor Naudi – Interior Minister of Andorra.

Jordi Farré – Director of the prevention, fire extinction and rescue department of Andorra.

Eric J. Van der Horst – Coordinator of the European Civil Protection Training Programme, Civil Protection, Prevention and Preparedness.

Laurent de Pierrefeu – Policy Officer of Civil Protection, Prevention and Preparedness.

Heike Wagner – Head of Division, Ministry of the Interior, Division IV/43, Counterterrorism Security Research, Deutschland.

Jochen Christe-Zeyse – Vice President of Police Academy of the Federal State of Brandenburg , Deutschland.

Markus von der Forst – Assistant Chief, Operations Department, Frankfurt Fire & Rescue Service, Deutschland.

Andreas Ruhs – Assistant Chief, Director of Fire Prevention, Frankfurt Fire & Rescue Service, Deutschland.

Josep Arola – Head of the Management Unit of the Fire fighters Region of Manresa, Spain.

Rut Carandell – Headmaster of the School for Prevention and Integral Safety, linked to Universitat Autònoma de Barcelona, Spain.

Juan José Espadas – Fire fighters of the Generalitat de Catalunya, Spain.

Eva Maria González – Directora de la Fundación Fuego.

Luis Carmena – Director técnico de la Fundación Fuego.

Joan Garcia – Head of CECAT, General Direction of Civil Protection of Catalonia, Spain.

Núria Iglesias – Head of the Department of Information and Communication of the General Direction of Prevention, Fire Extinction and Rescues of Catalonia, Spain.

Olga Martinez – Fire fighters College pedagogue, Institute of Public Security of Catalonia, Spain.

David Tisaire – Founder and Director of T&Associats, Spain.

Alain Collot – Lt-Colonel, Groupement Formation et École Départementale des Sapeurs-Pompiers, Rhône, France.

Denis Giordan – Lt-Colonel, Chef du Groupement Territorial Mulhous-Rhin, French Academy for Fire, Rescue and Civil Protection Officers, France.

Emmanuel Clavaud – Lt-Colonel, Directeur Départementale d'Incendie et Secours d'Haute-Provence, France.

Xavier Pergaud – Commandant, Service Départementale d'Incendie et Secours du Lot-et-Garonne, France.

Serge Delaigue – Colonel, Directeur Départemental des Services d'Incendie et de Secours, Chef du Corps Départemental, Rhône Fire & Rescue Service, France.

Jean-Marc Léal – Lt-Colonel, Direction de la Prévention et de l'Organisation des Secours, Rhône Fire & Rescue Service, France.

Jean-Pierre Duarte – Commandant, Groupement Analyse et Couverture des Risques, Rhône Fire & Rescue Service, France.

René Spies – Lt-Colonel, Chief of the Area of International Actions under the Department of Prospective and Development of the ENSOSP, France.

Olivier Trouvé – Commander, Head of the Area of Pedagogical Engineering of the ENSOSP, France.

Patricia Cologgi – President of the Council of Ministers, Regional Affairs Department, former Director at Ufficio Extradipartamentale della Protezione Civile, Comune di Roma, Italy.

Andrea De Guttry – Director, International Training Programme for Conflict Management, Italy.

Cinzio Merzagora – Disaster Manager, Lombardy Region, Italy.

Theo Jochoms – Program Manager of The Police Academy, Netherlands.

Andre Vervooren – Chief Seaport Police of Rotterdam-Rijnmond, Netherlands.

Simon Lewis – Chief Superintendent, Head of Emergency Preparedness, Metropolitan Police Service, London, United Kingdom.

COAUTHORS:

Fabio Bisogni – Fondazione FORMIT.

Simona Cavallini – Fondazione FORMIT.

Giampero Gasperini – Fondazione FORMIT.

Pietro Costanzo – GLEN Institute.

Paolo Fusco – GLEN Institute.

Carlotta Lalla – GLEN Institute.

Malin Roiha – Institut de Seguretat Pública de Catalunya.

Jordi Sans – Institut de Seguretat Pública de Catalunya.

Manel Medina – Universitat Politècnica de Catalunya.

Jetzabel Serna – Universitat Politècnica de Catalunya.

Robert Abelló – Institut de Seguretat Pública de Catalunya.

BIBLIOGRAPHY:

Based on:

COIM-Best: Bisogni F. (Coord.), Abelló R., Cavallini S., Costanzo P., Fusco P., Gasperini G., Medina M., Lalla C., Roiha M., Sans J., Serna J., Coordination Improvement by Best Practices - Final Report for the European Commission DG Home Affairs.

Other reference:

NATO-SAS-065; NATO NEC Command and Control Maturity Model, CCRP, Focus & convergence for complex endeavours

Karl E. Weick & Kathleen M. Sutcliffe; Managing the Unexpected: Resilient Performance in an Age of Uncertainty; Ed. Wiley & Sons, EEUU, 2007

Jackson B.A., McKay S., Preparedness Exercises 2.0: Alternative Approaches to Exercise Design That Could Make Them More Useful for Evaluating – and Strengthening – Preparedness. *Homeland Security Affairs*, Volume 7, EEUU 2011

Swedish Emergency Management Agency: Joeri Van Laere, Jessica Lindblom, and Tarja Susi, “Requirements for emergency management training from a ‘passion for failures’ perspective,” *ISCRAM 2007*, 2007.

http://www.oevelsesforum.dk/Dokumenter/kommunens_ovningsverksamhet_rek_2006_2.pdf.

Schank, Berman, Macpherson, Instructional-Design Theories and Models: A New Paradigm of Instructional Theory, Vol 2; Article nº 8; Ed. Charles M. Reigeluth, New Jersey 1999

Bombers de la Generalitat de Catalunya; Guia operativa 01.05 Comandament. Presa de Decisions

Schraagen J.M., Huis M., De Koning L.; Information Sharing During Crisis Management in Hierarchical vs Network Teams, *Journal of Contingencies and Crisis Management* 18, no 2, 2010

Devitt, Katherine R. Borodzicz, Edward P.; Interwoven Leadership: the Missing Link in Multi-Agency Major Incident Response - *Journal of Contingencies and Crisis Management*, Vol 16 Issue 4. Blackwell Publishing Ltd. Novembre 2008

Decret 82/2010, de 29 de juny, pel qual s'aprova el catàleg d'activitats i centres obligats a adoptar mesures d'autoprotecció i es fixa el contingut d'aquestes mesures.

Bombers de la Generalitat de Catalunya; Guia Operativa 11.07. Sistema de Comandament, 2010

Tom Maddison: L'ordenació del territori al regne unit a les rodalies d'instal·lacions amb perills greus; Revista Catalana de Seguretat Pública, número 23 monogràfic Risc i Territori; 2010, Ed: Institut de Seguretat Pública de Catalunya

Nassim Nicholas Taleb, The Black Swan: The Impact of Highly Improvable, Ed. Random House, EEUU, 2007

Comissió Europea, Comunicacions al Consell i al Parlament Europeu – Civil Protection, State of Preventive alert against possible emergencies, 28 de Febrer de 2001

Comissió Europea, Comunicacions al Consell i al Parlament Europeu - Civil Protection Progress made in implementing the programme form preparedness for possible emergencies, 11 de juny de 2002

Sans Pinyol, Jordi; La normativa sobre seguretat contra incendis en els edificis i indústries. Present i futur Revista Catalana de Seguretat Pública nº 18, abril 2008 (p. 173-194)

Llei 4/1997 de 20 de maig de protecció civil de Catalunya

Llei 2/1985 d'Espanya

Norma Bàsica sobre Protecció Civil del 1992 d'Espanya

ANNEX

Institut de Seguretat Pública de Catalunya

L'Institut

Àmbits d'actuació

▶ Formació

▶ Selecció

▼ Recerca

- Escola d'Estiu
- Projectes europeus
- Cooperació internacional
- Ajuts a la recerca
- **Jornades i seminaris**
- Grups de recerca

▶ Plans d'autoprotecció

Serveis

Tràmits



[Institut de Seguretat Pública de Catalunya](#) > [Àmbits d'actuació](#) > [Recerca](#) > [Jornades i seminaris](#) > Sessió de presentació de resultats del Projecte europeu COIM-BEST

Sessió de presentació dels resultats del Projecte europeu COIM-BEST



LA MILLORA DE LA COORDINACIÓ MITJANÇANT LES MILLORS PRÀCTIQUES

Mollet del Vallès, dimarts 30 d'octubre de 2012

Codi de l'activitat: 2010/80.815.00483

En la presentació de la jornada de presentació de resultats del projecte europeu COIM-BEST (Coordination Improvement by Best Practices), la Directora de l'ISPC, **Núria Aymerich**, va destacar la importància de les aportacions dels estudis de recerca per obtenir una visió oberta i àmplia, més enllà dels coneixements tècnics que ofereix formació a l'ISPC. Aquesta visió afavoreix la millora de l'eficàcia i de l'eficiència en la gestió estratègica i operativa de les grans emergències.

El projecte ha investigat com, per mitjà de la formació, es pot millorar la coordinació entre múltiples agències per fer front a les situacions crítiques que es produeixen en les grans emergències.

Entre les conclusions de l'estudi COIM-BEST, que ja ha rebut bones valoracions per part de la comissió europea, es destaca la necessitat d'una bona coordinació entre els cossos i agents que participen en la gestió de les grans crisis, generar una confiança entre aquests actors, harmonitzar la formació i una bona articulació de les categories de comandament que es fan càrrec de la direcció de la gestió de l'emergència.

El projecte COIM-BEST s'emmarca en el Programa per a la prevenció, preparació i gestió de les conseqüències del terrorisme i altres riscos relacionats amb la seguretat (CIPS) de la Direcció General de Justícia, Llibertat i Seguretat de la Comissió Europea i compta amb la col·laboració de l'Institut de Seguretat Pública de Catalunya, la Fondazione per la Ricerca sulle Migrazione e Integrazione delle Tecnologie (FORMIT), el Global Law Enforcement Institute i la Universitat Politècnica de Catalunya.

Destinada a

Personal tècnic i directius dels diferents cossos de seguretat de les administracions públiques de Catalunya, així com altres professionals interessats en la matèria.

Objectiu

S'exposaran els resultats i les troballes fets durant els dos anys que s'ha treballat en el Projecte COIM-Best (Coordination Improvement by Best Practices) i en què han participat l'Institut de Seguretat Pública de Catalunya conjuntament amb la Universitat Politècnica de Catalunya, el Global Law Enforcement Institute d'Itàlia i la Fondazione FORMIT (Fondazione per la Ricerca e la Migrazione della Tecnologie) també d'Itàlia, que ha exercit la coordinació del projecte.

La millora de la coordinació entre múltiples agències mitjançant la utilització d'elements comuns i eficients de formació és un objectiu indiscutible en el procés d'optimització de la preparació dels sistemes de seguretat públics per fer front a situacions crítiques de gran emergència.

Programa

9.30 h **Acollida i registre d'assistents**

9.45 h **Benvinguda i inauguració**

- NÚRIA AYMERICH I ROCAVERT, directora de l'Institut de Seguretat Pública de Catalunya

10 h **Presentació del projecte europeu COIM BEST**

- FABIO BISOGNI, membre del Consell de Direcció de FORMIT (Fondazione per la Ricerca sulla Migrazione e Integrazione delle Tecnologie)
- PIETRO COSTANZO, investigador de FORMIT

11.30 h Pausa

12 h **Resultats i conclusions del Projecte europeu COIM BEST**

- MANEL MEDINA, European Network and Information Security Agency (ENISA)
- JORDI SANS, responsable de Recerca, Institut de Seguretat Pública de Catalunya

13.15 h **Cloenda**

- JOSEP M. JUNCOSA, cap de l'Escola de Bombers i Protecció Civil de l'Institut de Seguretat Pública de Catalunya