

**TIEMS**

The International Emergency Management Society



# THE INTERNATIONAL EMERGENCY MANAGEMENT SOCIETY

## Newsletter - ISSUE 20 - March 2014

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Read about TIEMS DREVS initiative:

### *Disaster Resilience Establishment in Vulnerable Societies*

In the Message from TIEMS President

## The International Emergency Management Society

*TIEMS continues its international development, and is spreading out its activity more and more worldwide, with members and chapters. New members and chapters add valuable expertise and cultural diversity to the TIEMS international network, which comprises of users, planners, researchers, industry, managers, response personnel, practitioners, social scientists, and other interested parties within emergency and disaster management. This network constitutes a large international multidisciplinary group of experts, with different educational backgrounds and various experiences. Read more about this network and its activities in this newsletter.*

**Alex Fullick**  
**TIEMS Newsletter Editor**

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## Message from TIEMS President



The vulnerability of the Philippines was exposed worldwide, when the typhoon Haiyan struck the Philippines on the 10th of November 2013, and I think the conclusions below are relevant:

1. Building disaster preparedness will reduce the devastating consequences of natural disasters in vulnerable countries.
2. Vulnerable countries with limited resources need to get professional help with their disaster preparedness.
3. Disaster preparedness should be based on risk assessments identifying potential threats and means to deal with these threats.
4. The goal must be to provide help building up local expertise to "help the countries to help themselves in a critical situation".
5. Education and training of locals, offering courses on all levels from universities to primary schools, are the key to create a risk management culture in the vulnerable countries.
6. Media could play a role putting a focus on the preparedness challenges in vulnerable countries, and stimulating the willingness of the international community to donate financially to build up preparedness and create resilient societies.
7. An international organization is needed to be the central coordinating organization of this effort. Today the United Nations is probably the best international organization to take on this task, but other international organizations should also be considered.
8. A cooperation model needs to be established to allow all qualified stakeholders in the global emergency management sector to participate and contribute to building resilient societies.
9. The receiving countries must likewise be helped to build local expertise able to manage the local situation and manage the preparedness projects.
10. There must be a focus on reducing aid administrative costs, so most of the means collected goes to the activity planned.
11. Control mechanisms for disaster preparedness projects should be established that measures effectiveness and economics, and insures projects are managed according to schedule and budget.

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*The International Emergency Management Society ([www.tiems.org](http://www.tiems.org))*

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Changing climate, population growth, and other factors conspire to make vulnerable world populations increasingly at risk of loss of life and property due to disasters. The international community is more than willing to help these populations, as evidenced by the outpouring of aid after disaster strikes.

The benefits of international cooperation and coordination are very clear. However, attempts to function as a global community are often hampered by the challenges of coordination across cultures and organizations. Coordination can be particularly difficult without the pressure of on-going emergency, making efforts at global preparedness even more difficult.

TIEMS believes global emergency preparedness can be improved, and losses in particularly vulnerable areas reduced, through:



Oslo 9<sup>th</sup> March 2014  
*K. Harald Drager*  
*TIEMS President*

(A) Establishment and dissemination of a standardized base of emergency management knowledge, inclusive of and adaptable to local knowledge and conditions;

(B) Greater emphasis by the international aid community on preparedness versus response in vulnerable regions.

TIEMS has established an initiative to catalyze these improvements:

**(DREVS)**

### ***Disaster Resilience Establishment in Vulnerable Societies***

All stakeholders, including media, are invited to participate. The initiative has two initial thrusts:

1. The first is the TIEMS Qualifications in International Emergency and Disaster Management (QIEDM) Certification program ([www.tiems.org](http://www.tiems.org)).
2. The second is the creation of a pilot project and demonstration of international collaboration for disaster preparedness.

The Philippines is a prime candidate for this demonstration. Details on this pilot project are forthcoming, and organizations and individuals interested in participating are encouraged to contact TIEMS.

Area of the Philippines where  
Haiyan struck

Photo: Erik de Castro



## Editor's Message

**Hello good readers!**

Welcome to the 2014 spring edition of the TIEMS Newsletter. As I mentioned in the last newsletter, TIEMS is an organization dedicated to building a global community and once again, it shows in this edition, with articles, call for papers and projects from Finland to the United States to Switzerland and Nepal.

Speaking of call for papers; take note of the deadlines for a couple of the announcements, as the deadlines are not that far off.

In keeping with the global spirit of TIEMS, in many cases I have tried to keep the original voice(s) of the article/announcement author(s) to keep that international flavor.

We are always looking for interesting articles and announcement to provide you - our readers. If you have an article you'd like to contribute on topics related to Emergency and Disaster Management, Business Continuity or Crisis Communications – or anything else you feel would suit the newsletter - feel free to send them to my attention at the email below. Our next newsletter will be scheduled for a summer release (August 2014), so the deadline for any submissions is Sunday, July 27, 2014.

In the meantime, we hope you like the latest edition of the newsletter.

Sincerely,

**A.Alex Fullick, MBCI, CBCP, CBRA, v3ITIL**

Editor

Email: [alex@stone-road.com](mailto:alex@stone-road.com)

## **Congratulations to Meen B Poudyal Chhetri for Receiving the Award of Excellence!!**



TIEMS would like to congratulate Meen B. Poudyal Chhetri (Nepal) who chairs the TIEMS Paper Review Committee. Meen was recently recognized at the "Australia Alumni Excellence Awards 2014" in a jubilant ceremony organized by the Australian Embassy in Kathmandu, Nepal. The award was given by the Government of Australia in recognition of his significant contribution to the field of disaster management and good governance.

*Says Meen, "Naturally, I am very happy to receive the Award. I feel highly honored. The Award has motivated and encouraged me to work and contribute further in the field of Disaster Risk Reduction (DRR) and good governance in Nepal and beyond. After receiving the Award, I have felt more responsibility and accountability."*

The ceremony was held on January 20, 2014 at the Hotel Radisson in Kathmandu. The ceremony was hosted by none other than the Ambassador of Australia, H. E. Mr. Glenn White. Chief Guest of the ceremony was the Chief Secretary of the Government of Nepal, Mr. Lila Mani Paudel.

On behalf of TIEMS and all your colleagues around the globe, congratulations on this extraordinary award, Meen! Well done!



# CAUSES OF CORRUPTION: *Measures to Control*

*Prof. Meen Bahadur Poudyal Chhetri, Ph.D.<sup>1</sup>*

## 1. Background

Corruption is the improper or illegitimate hobby of self-interest or sectional advantage. Corruption exists because there is a supply of and demand for this service. The problem of corruption is not a new phenomenon. Corruption is not limited to any particular country, region, class or system. It has dribbled into both private and public sectors and into almost all walks of life. It has highly influenced the current political, bureaucratic and private sectors as well. It happens everywhere but it is more rampant in third world or underdeveloped countries where standards of living and education are low. Corruption takes place at both levels namely; between individual and collective forms of corruption. It may vary in magnitude and in its modus operandi, but it is so rampant throughout the world that it has been the matter of grave concern among all. Hence, it has been the subject of substantial theorizing and empirical research and this has produced a bewildering array of alternative strategies, explanations typologies and measures (CIAA 2005). Corruption is a universal problem, but around the world local governments seem particularly susceptible (Klitgaard 2000). Corruption is a practice of offering cash and kind and the theft of public funds to a wide range of interrogative economic and political practices in which business people, politicians and bureaucrats take undue advantage. Corruption has been found as an obstacle to the needed economic and political reforms, accountability transparency and good governance (Chhetri 2005).

Being a transfer of wealth from one group to another, corruption ultimately benefits the rich at the expense of the poor. Therefore, corruption is perceived as the cancer of the society.

## 2. Definition of Corruption

There is no single definition for corruption. However, common definitions include: misuse of public power for personal gain; abuse of public office for private gain; using position to feather own nest; dishonesty or breach of trust by a public officer in the exercise of duty; illicit exchange between two spheres; and encourage others to do corruption.

Some prominent personalities and organizations have defined corruption as following:

*"Corruption involves behavior on the part of officials in the public and private sectors, in which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed."* – World Bank

*"Corruption hurts the poor disproportionately by diverting funds intended for development, undermining a government's ability to provide basic services, feeding inequality and injustice, and discouraging foreign investment and aid."* - Kofi Annan, Former UN Secretary General

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<sup>1</sup> Prof. Chhetri is the President of Nepal Center for Disaster Management (NCDM); Adjunct Professor at the Queensland University of Technology (QUT), Brisbane, Australia and Chairman of TIEMS Paper Review Committee.

*"Corruption is an abuse of (public) power for private gain that hampers the public interest...corrupt entails a confusion of the private with the public sphere or an illicit exchange between the two spheres. In essence, corrupt practices involve public officials acting in the best interest of private concerns (their own or those of others) regardless of or against, the public interest." – United Nations*

*"Corruption is a behavior on the part of officials in the public sector, whether politicians or civil servants, in which they improperly and unlawfully enrich themselves or those close to them by the misuse of the public power entrusted to them. This would include embezzlement of funds, theft of corporate or public property as well as corrupt practices such as bribery, extortion or influence peddling." – Transparency International*

*"Corruption is a transaction between private and public sector actors through which collective goods are illegitimately converted into private-regarding payoffs." - Heidenheimer et.al. 1993:6*

From the above definitions we can draw the conclusion that corruption arises in both political and bureaucratic offices and can be petty or grand, organized or unorganized. Political corruption is the rule by thieves, where even the pretence is abandoned. Political corruption (kleptocracy) is the end point of political corruption. Corruption undermines democracy and good governance by weakening formal processes.

### **3. Classification of Corruption**

"Petty" → "Grand" (NORAD 2000)

"Bureaucratic" → "Political" (Morgan'98)

"State Capture" → "Administrative Corruption" (World Bank 2002)

"Isolated" → "Systemic" (World Bank 2002)

### **4. Equation of Corruption**

Corruption = (Monopoly and Discretion) - Accountability + Integrity + Transparency

### **5. Forms of Corruption**

- Embezzlement
- Nepotism/Favoritism
- Extortion
- Bribery (grease money, speed money, gift, kickbacks, sweetener)
- Peddling
- Fraud

### **6. Twenty Two Major Causes of Corruption**

1. Power Base/Back Force/ Too much power
2. Benefit for oneself and allies
3. Inadequate salary, need, greed, envy, red tapes, delay, monopoly, too much power, discretionary power, loop holes and dishonesty



4. Help is needed and the person in authority requires money
5. Scarcity of Goods and Services
6. Political instability
7. Loopholes in the rules and regulations
8. Easy Money
9. Opportunity, Motivation and Culture
10. More Pleasure – Less Pain
11. Prone to corruption (revenue officials, salesman, storekeepers etc.)
12. Gender (Male are found more corrupt than female)
13. Prior Relationship or Friendship
14. Raised without proper ideals, life experience, upbringing, education
15. Lack of transparency
16. Costly political campaigns
17. Large amount of capital in a project
18. Love of Money
19. Minimal freedom of speech/press
20. Inadequate salary
21. Lack of public awareness
22. Absence of adequate controls to prevent “election campaign donations”

## **7. Consequences of Corruption**

As the consequences of corruption, the economy as well as the public will suffer as government money goes into the wrong pockets. The poor will suffer most, because they don't have the money to bribe or they have to pay something extra to get things to be done. Corruption in elections and legislation reduces accountability to the people and the country. Corruption in judiciary suspends the rule of law. Corruption in public administration results in the unequal distribution and provision of goods and services. Corruption weakens the institutional capacity of govt. as procedures are disregarded, resources are siphoned off and officials are hired or promoted without regard to performance. Corruption undermines the legitimacy of government, economic development, good governance and democratic values by subverting formal processes or rule of law. Financial capital shall be moved overseas instead of investing at home. There will be no trust, no morality, no integrity, no respect, and no tolerance at all.

## **8. Key Messages**

Corruption is perceived as a systemic phenomenon that can be addressed by reducing opportunities for corruption and increasing disincentives for corrupt behavior. There is no readymade solution, magic wand or formula to make the scourge of corruption disappear. While talking about corruption and corrupt behavior, we should recognize law and order. It is possible to prevent corruption through changing social customs and institutions besides punishing individuals. Public awareness, public anti corruption strategies, public participation, 'watchdog' agencies, the judiciary, the media, the private sector, and international cooperation are the pillars of corruption control. The challenge is to assess the relative strengths and weaknesses of each of the pillars and involve the government, civil society, and wider aid community in an overall program of institutional strengthening. Anti-corruption initiatives need to widen their scope to include other actors.

World Bank study indicates countries with low tolerance for corruption have more successful economies and increased rates of development. The World Bank's comprehensive index of corruption indicators is designed to measure global trends in good governance. The indicators assess 352 measures of corruption and cover over 200 high income and developing economies. A key finding in the World Bank study is that political will is the key to making progress against corruption.

The World Bank's anti-corruption director, Daniel Kaufmann, says that corruption can be found everywhere, but the countries deemed the least corrupt, led by the five Nordic states and New Zealand, have several traits in common. These include a high regard for human rights, political stability, an effective, accountable government bureaucracy, market-friendly policies and a strong rule of law.

Another key finding on corruption is that particularly in developing countries where corruption is low, living standards are up to 300-percent higher than in those developing countries where corruption is rampant. In addition, countries making progress against corruption attract more foreign investment that helps to boost up the economy of the country. Hence, the above facts and figures underline the need to fight against corruption in a concerted and effective way.

Even when the effect of democratization in curtailing corruption is still much debated and not very strong according to available statistics, one fundamental argument is that corruption can only be reversed by democratizing the country. Economic and political competition, transparency and accountability, coupled with the democratic principles of checks and balances, are the necessary instruments to restrict corruption and power abuse.

## 9. Conclusions

The fight against corruption will have to be placed within a broader agenda of democratization. Although a lot of actions are taken to curb corruption, it seems to be uncontrollable as the factors are almost impossible to eliminate, particularly due to the loopholes in the law. On the other hand, it is found that some people in power are not serious to curb corruption, particularly the top level politicians. Reluctance and indifference behavior of some governments to take action against corrupt is another mystery. Lack of resources, lack of evidences, lack of seed money and red tapes are the major impediments to control corruption. Therefore, it is said that corruption is 'natural' like diseases, which come and go. However, it is controllable.

Economic fairness and political integrity, transparency and accountability, coupled with the democratic principles of checks and balances, are the necessary prerequisites to control corruption. More importantly, the demand and supply-side causes must be identified and addressed to combat corruption in an effective way. Therefore, combating corruption requires an early start with heavy treatment. Above all, corruption control must be the **National Agenda** for the good governance, economic development and the establishment of rule of law.

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## TIEMS WELCOMES JEAN-PAUL MONET!!



*In this edition of the newsletter, we interview the newest TIEMS Board Member; Jean-Paul Monet. We wanted to get to know Jean-Paul a little better and asked him a few questions; here's what he had to say.*

### **1) How did you become involved with TIEMS?**

The short answer is that I attended a TIEMS conference in Nimes in 2011. Over the next 2 years, I've been working with Harald Drager (Ed Note: TIEMS President) at the European level for research and R&D Projects. Very early in our discussions, we agreed on the 2013 TIEMS Annual conference; the Aix' Conference. The topic was very focused in nature but thanks to the TIEMS' Network, it was successful with more than 120 attendees.

## ***2) What do you do in your day to day role?***

In general, French sapeurs-pompiers (French Fire Brigade are civilian forces, linked to the Ministry of Interior) execute both the day to day fire operations and also take part in national safety response plans; ORSEC. We also deal with specific national security plans associated with terrorist threats.

On site, first response coordination is dealt by an officer (incident commander) from the sapeurs-pompiers. He coordinates response efforts between the police, the gendarmerie nationale (Police part of the French Armed forces), ambulances and hospitals present on the ground. All the sapeurs-pompiers are trained to face various accidents; medical emergencies, fires, industrial and/or terrorist issues. They train special units to deal with decontamination, radiological, chemical risks, earthquakes, hiking, diving etc. The incident commander from the sapeur-pompiers reports to the strategic level represented by the Mayor (municipal level) or the Prefect (area department level) depending on the gravity and the geographical scope of the crisis. If this operation constitutes a threat to national security, the Prime Minister is responsible for nation-wide response strategy.

For long lasting or nation-wide CBRN crisis the French Armed Forces can assist with the first response efforts. In preparation for this, the sapeurs-pompiers and French Armed Forces train together at the Centre National Civilo-militaire for CBRN CNCMFE (national CBRNe joint school) in order to prepare themselves against CBRN attacks.

I'm personally in charge of the command and management of 13 stations defending 29 municipalities and 250,000 inhabitants. I can be the Incident commander for big incidents and I am responsible for administrative concerns also. For example I prepare the stations budgets and follow careers of 1,000 firemen (800 volunteers and 200 professionals). But my role as CBRNe advisor takes a large part of my time. I organise trials, instructions and sometimes risk and issue mitigation and daily operations. I have also collaborated with the national CBRNe joint school; the national body responsible for civilian and military training on terrorist issues.

My regional advisory mission is to advice the zonal fire chief and to organise meetings and trials. This position gives me a place in the national CBRNe advisors network, working for the national civil protection department.

## ***3) What will you be doing for the TIEMS organization?***

I will try to connect my personal network to TIEMS' activities. I have to manage, at first, the sponsorship for TIEMS. It's not easy at all, to promote an international society. I'm not a professional at communication or advertising but am involved in TIEMS' activity to spread and teach security and safety knowledge. I will do my best of course!

**4) What do you think will be your biggest challenge?**

My biggest challenge today is to establish a French chapter of TIEMS. I have to find good conditions and active people to give TIEMS a "French touch".

**5) Tell us something about your greatest achievement (something you're most proud of) in Disaster / Emergency Management?**

On a scientific point of view, I'm proud of some R&D achievements:

- Working for Unmanned Ground Vehicles co-development with a French manufacturer,
- Going on with studies on wildfire accidents involving Volatile Organic Compounds explosion.

These fields of "research" allowed me to have some papers, mostly at national level, to share and spread our opinions in Civil Protection community.

On a professional point of view, I think that the best feeling is at the end of a big incident (e.g. Forest fires) after fighting for hours or days you can say: we stopped it, fire is blocked. You are tired, but the feeling is extraordinary.

**6) How do you like to spend your free time?**

My free time is related to 3 main activities:

- running in the bush,
- cooking,
- looking after my olive trees in order to prepare olive oil.

**7) Is there anything else you'd like to tell us?**

At first I want to thank all board members and Harald Drager choosing me to take part to this "adventure".

Secondly, as European Union citizen, I want to share my safety and security knowledge with the world.

*Editor: Thanks Jean-Paul and we all look forward to working with you!*



# TIEMS 2014 Annual Conference in Niigata, Japan

## Announcement and Call for Papers



I am honored to announce the outline of TIEMS 2014, which will be held on Oct 20th (Mon) - Oct 23th (Thu) in Niigata, Japan. The year of 2014 has the special meaning for the local stakeholders. It is 40 years' anniversary of 4 major disasters occurred in Niigata; Niigata Earthquake in 1964, Yakeyama Volcano Eruption in 1984, Niigata-Fukushima Flood in 2004, and Niigata-Chuetsu Earthquake in 2004. It will be the great opportunity to have the TIEMS conference 2014 there because the momentum of concerning about risk management is going to be gathered at the citizens and experts.

TIEMS Conference 2014 in Niigata plans to host the participants to have the chance of sharing the science knowledge from the researchers, learning the lessons learned from the past experiences from the practitioners in the disaster management field, and viewing the industry exhibition came out of the experience of responding to disasters.

**Keiko TAMURA,**  
**Niigata University**

### 1. Dates

Oct 20th (Mon) Pre-Event Session, Registration

Oct 21th (Tue) Opening, Symposium, Presentations & Posters,

Oct 22th (Wed) Symposium, Presentations & Posters

Oct 23th (Thu) Closing

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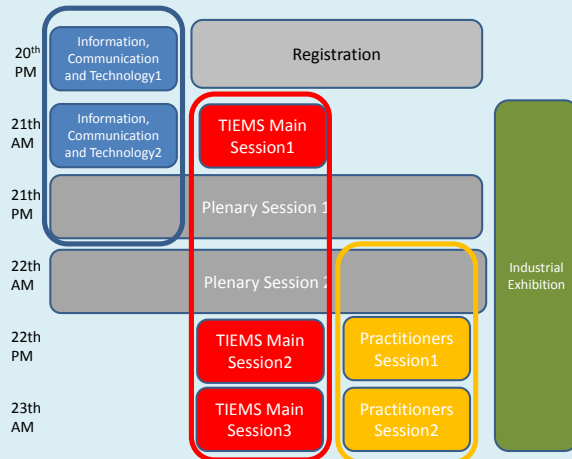
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## 2. Location

Toki Messe, Niigata Convention Center

<http://www.tokimesse.com/english/>

## Outline of the schedule



## 3. Plenary Session (Information in this section is subject to change)

### 3.1 Plenary Session 1

-Keynote Speech1: Yoshiaki KAWATA, Professor, Kansai University

-Panel Discussion :

- Yoshiaki KAWATA, Professor, Kansai University
- Hirohiko IZUMIDA, Governor of Niigata Prefecture
- Akira SHINODA, Mayor of Niigata City
- Sugata TAKAHASHI, President of Niigata University
- K. Harald Drager, President of TIEMS

Plenary Session 2 in the process of finalizing the schedule

## 4. Important Dates

### 4.1 Important Dates (for Authors)

- Extended Abstract (Work in Progress) Submission Date: July 20, 2014
- Research Paper, Student Paper, Case Study, Report Submission: July 20, 2014
- Notification of Extended Abstract (Work in Progress) Acceptance/Rejection: August 15, 2014
- Notification of Research Paper, Student Paper, Case Study, Report Acceptance / Rejection: August 31, 2014
- Camera Ready Paper Due: September 20, 2014

### 4.2 Important Dates (for Participants)

- Participant(s) Registration (Open); April 15, 2014
- Early Bird Registration Deadline; August 01, 2014

4.4 Paper Submission & Registration : <http://emc.nhdr.niigata-u.ac.jp/tiems2014/cfp.html>

# USA CONFERENCE ANNOUNCEMENT AND SECOND CALL FOR PAPERS

**The International Emergency Management Society's 2014 USA Conference**

## **CONFERENCE THEME**

**Global Response for Capacity Building of Disaster Preparedness**

## **CONFERENCE DATES & VENUE**

**July 21 – 23, 2014**

**University of Southern Mississippi, Hattiesburg, Mississippi, USA**

**Sponsored and Supported by:**



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**[Crisis Response Journal](http://www.crisisresponsejournal.com)**

## **BACKGROUND**

Time and again, the international emergency management community has come together to provide aid when a disaster or catastrophic event has overwhelmed local, state or national resources. The need for this often occurs because developing nations are the most vulnerable, due to geography and economics. For example, between January 1980 and July 2013, 51 percent of deaths due to climate-related disasters occurred in the world's 49 least developed countries, which represent only 12 percent of the world's population (Ciplet, 2013). However, this problem affects all of us. Beyond humanitarian responsibility, our interconnected global community cannot escape broader economic, social, and political impacts.



And even the developed world is not immune to disaster and the need for international assistance. In recent years, the United States has experienced Hurricanes Katrina and Sandy, numerous tornado outbreaks, and the tragedy of terrorist acts such as the Boston Marathon bombing, reminding all of us that international cooperation and coordination benefits the needs of our families and loved ones, no matter where they live.

Benjamin Franklin once said, “An ounce of prevention is worth a pound of cure.” While international aid to disaster-stricken communities is an admirable humanitarian response, coming together to build more global **resiliency** would do even more. In addition to saving more lives, scarce resources would go further – a typical estimate is that investing one dollar in disaster resiliency saves three or four in disaster response (Surowiecki, 2012). An important way the international community can improve global resilience is by sharing knowledge and experience, and by providing training in core competencies to reduce loss of life and minimize damage during and following disaster. This theme is at the heart of the conference.

### CONFERENCE GOAL AND TOPICS

The goal of this conference is to bring together members of the emergency and disaster management community to discuss research, initiatives, and experiences directed toward more effective international collaboration in preparedness and response. Papers are being solicited on the following topics:

- Educational initiatives to share lessons and best practices, establish standards, and improve capabilities across the international emergency management community
- Knowledge bases to support international emergency management and response
- Use of social media, virtual reality, and other new technologies to improve international emergency preparedness and response
- Case histories and lessons learned from international preparedness and response activities
- Analyses of the effects of international climate, economics, and policies on emergency vulnerability, preparedness, and response.
- Other relevant topics will also be considered.

Please see the information later in this announcement to submit proposals for papers.

## TIEMS INTERNATIONAL EMERGENCY MANAGEMENT EDUCATIONAL PROGRAM

A special session at the conference will be devoted to the TIEMS International Emergency Management Educational Program. There is an increasing interest and need for structured and consistent disaster management education of first responders and emergency managers. Vast experience is possessed by all nations. Such an intense international academic undertaking is possible through TIEMS due to its reputation, its membership, and the expertise it represents. Despite the wide range of countries, cultures, and languages, a common platform exists for emergency management. TIEMS concept is based on cooperation with international experts and expert organizations worldwide such that the best ideas, best training and best practices worldwide are represented. Universities and Training Institutions around the world are invited to join us in program development, and can be certified to run specific courses and training.

### TIEMS USA CHAPTER

At this conference we will establish a USA Chapter of TIEMS. Although TIEMS was founded in Washington, D.C. in 1993, and US members have always played a key role in TIEMS, there has not been a local USA Chapter. Establishing a local chapter will help better connect the substantial USA emergency management community with TIEMS international work. If you live in the USA, by attending this conference you will become a member of the newly established Chapter. At the conference you will have the unique opportunity to participate in the first Chapter meeting, and help shape the future of TIEMS in the USA and worldwide.

### WHO SHOULD ATTEND

This conference provides a unique opportunity in the US to connect with the international emergency management community. Political and administrative decision makers, academics, researchers, risk management specialists, industry representatives, authorities, the insurance industry and others with interest in participating in or learning from international emergency management will benefit from participating.

### CONFERENCE KEYNOTES



**TIEMS President, K. Harald Drager (Norway).** Keynote Speech: ***TIEMS Worldwide Operation and Activities towards Resilient Societies***. Mr. Drager is Managing Director of QUASAR Invest AS, a consultancy in global safety, emergency and disaster management. He has extensive international experience with the World Bank, NATO, and the European Commission. He is a founder and current President of TIEMS.



**Dr. QU Guosheng (China).** Keynote Speech: ***The Third Worlds Needs in Disaster Preparedness: What can USA Organizations, Institutions and Industry Provide?*** Dr. QU is Professor, and Deputy Director of S&T Committee of the National Earthquake Response Support Service (NERSS) in China, Deputy General Team Leader of China International Search and Rescue Team (CISAR), Director of Digital Disaster Mitigation and Emergency Management Research Centre, IDC, Peking University. He is the current Vice President of TIEMS.





**Kay Goss (USA).** Keynote Speech: ***The Big Ten: Ten Major Changes in Emergency Management in Last Ten Years and Ten Major Changes to Come in Next Ten Years.*** Founding president and CEO for World Disaster Management; former associate FEMA director in charge of national preparedness, training, and exercises for President Bill Clinton.



**Lieutenant Colonel Martin Thomsen (Denmark).** Keynote Speech: ***TBA.*** Deputy Head of the College at the Danish Emergency Management Agency; Member of the UN Office for the Coordination of Humanitarian Affairs and Disaster Assessment and Coordination Team; Chairman, Sahana Software Foundation, using information technology to save lives in emergencies.



**Gisli Olafsson (Iceland).** Keynote Speech: ***Building Capacity in Developing Countries.*** Emergency Response Director of NetHope, specializing in information and communications technologies to enhance emergency response; member, UN Disaster Assessment and Coordination (UNDAC) team; former Disaster Management-Technical Advisor for Microsoft.



**Bartel Van de Walle, (Netherlands).** Keynote Speech: ***Bringing together Local and Global Communities in Crisis Preparedness, Response and Recovery.*** Associate Professor, Department of Management, Tilburg School of Economics and Management at Tilburg University (Netherlands); served as a staff advisor on innovation and science policy to the Flemish minister of science and innovation; Board member of the Flemish Institute for Technological Research (VITO); President of the Board of the international Information Systems for Crisis Response and Management Association (ISCRAM).



**Clair Blong (USA).** Keynote Speech: ***Challenges of Catastrophic Disaster Preparedness and Need for Comparative Studies.*** International Disaster Preparedness Institute; FEMA Representative to NORAD-USNORTHCOM; formerly Professor of Political Science, National Defense University, Industrial College of the Armed Forces; Ph.D. Comparative Political Systems, University of Maryland.



**Gilles Dusserre (France).** Keynote Speech: ***Contribution of Simulation for the Enhancement of Crisis Management Training.*** ***Head of the Institute for Sciences of Risks (ISR)*** at The Ecole des Mines d'Alès; involved in the supervision of many PhD students. His research interests are risk assessment and crisis management. He's currently involved in various international Collaborations between France, Canada, Japan and Belgium on safety and security studies. He has been involved in many R&D projects at the French, European and international levels.

## SAMPLING OF OTHER CONFERENCE PRESENTATIONS

- **Neil Dufty, Molino Stewart Pty Ltd (Australia)** - *Developing disaster resilience learning plans and programs with multi-cultural communities.*
- **James Hagen, Saint Xavier University (USA)** - *Core Competencies in Global Emergency Management: Finding a Common Ground.*
- **Joseph Pollack, Crisis Training (Norway)** – *Emergency Management Panel*
- **Thomas Robertson, Thinking Teams (USA)** - *A Survey of Virtual Simulation Technologies for Emergency Management.*
- **Samantha Ridler Ueno, TIEMS (UK/Japan)** - *App's for Disaster: Smartphones vs Smartwatches.*
- **Connie White, University of Southern Mississippi (USA)** - *(hFOSS): Crowdsourcing, Hackathons and Virtual Communities of Practice Supporting Developing Countries Information Needs.*

## CONFERENCE VENUE AND ACTIVITIES

Conference sessions will take place at the University of Southern Mississippi campus in Hattiesburg, MS. Hattiesburg is called the Hub City, being conveniently located between New Orleans, Biloxi, Mobile, Alabama, and the state capital, Jackson. Disasters are no stranger to this area - in 2005, powerful Hurricane Katrina made landfall in Waveland Mississippi, heavily damaging both the Gulf Coast and New Orleans. For our conference, we have arranged an optional field trip to New Orleans, only 1.5 hours from Hattiesburg. Members will ride in a comfortable bus to view areas still showing the effects of Katrina, and then we will be dropped off at Jackson Square in the city to enjoy a couple of hours in the French Quarter and surrounding areas.



**Monday, July 21<sup>st</sup>, 2014** - Conference sessions will begin at 8:30 AM in Room 214-218 at the Thad Cochran Center ([Cochran Center](#)), 118 College Drive on the University of Southern Mississippi campus (phone 601.266.4399). Breakfast and lunch will be provided. Our first day will conclude with a Welcome Reception at 5:30 PM at Branch Bar and Lounge ([Branch](#)), 3810 Hardy Street, Hattiesburg, MS (telephone 601.264.0657). Delicious appetizers will be served, and a cash bar will be available.

**Tuesday July 22<sup>nd</sup>, 2014** - Conference sessions will resume at 8:30 AM in Room 214-218 at the Thad Cochran Center. Breakfast and lunch will be provided. At 4:00 PM a bus will board for the optional field trip to New Orleans. After a brief tour of Katrina-affected areas, the bus will drop us off at historic Jackson Square about 6:00 PM, where participants will be free to enjoy the local sights, tastes, and sounds. At 8:00 PM the bus will leave Jackson Square to return to Hattiesburg by about 9:30 PM.

**Wednesday July 23<sup>rd</sup>, 2014** - Conference sessions will begin at 8:30 AM in Room 214-218 at the Thad Cochran Center. Breakfast and lunch will be provided. The conference will conclude about 2:00 PM.

## ACCOMMODATIONS

Accommodations are to be arranged by attendees; however, the Hampton Inn Hattiesburg ([Hampton Inn](#)) is offering special room rates of \$89/night to conference participants when you book your room by **July 6**. After July 6, rates and rooms are subject to availability. Rooms with two double beds or single king beds are available. Please use the code **IAM** when making your hotel reservations by phone or if making your reservations on-line. The hotel is less than two miles from the conference center. The hotel serves breakfast (although we have breakfast at the conference), free WiFi, free parking, free 24 hour coffee bar, work-out facility and

a pool. It is also within walking distance of numerous restaurants, a convenience store, and it is across the street from an indoor shopping Mall.

## TRAVEL

Although most will fly through Atlanta, Georgia when arriving, the last leg of the flight could be to any of the following airports. The airport codes and driving times to the conference center are:

- New Orleans, LA (MSY); 2 hrs 5 min
- Jackson, MS (JAN); 1 hr 51 min
- Mobile, AL (MOB); 1 hr 40 min.

There is a local airport, but it can be relatively expensive - (PIB) <http://www.flypib.com/>.

Non-US persons may need to apply for a visa to attend the conference. If you need a visa, you will need to obtain one from the US Embassy Consular Section in your country. How to obtain a visa is described at [Getting a Visa](#) . If you need a visa, we recommend you start the process right away, as it can take several months.

If your country is listed as part of the Visa Waiver Program (VWP), you may not need a visa. (You will, however, require a machine-readable passport.) A list of countries participating in the VWP can be found here: [VWP Countries](#).

## CONFERENCE REGISTRATION

Register for the conference here: [Conference Registration](#) . The following fees apply. Register early and take advantage of reduced rates!

Time of Payment	Conference fee Regulars		Conference fee Students	
	Non TIEMS Members	TIEMS Members	Non TIEMS Members	TIEMS Members
<b>Early Bird</b> Before 15 <sup>th</sup> March, 2014	400US\$	300US\$	300US\$	250US\$
<b>Normal</b> 16 <sup>th</sup> March – 15 <sup>th</sup> May, 2014	450US\$	350US\$	330US\$	300US\$
<b>Late</b> 16 <sup>th</sup> May - 20 <sup>th</sup> July 2014	500US\$	400US\$	380US\$	350US\$
<b>At Conference</b> 21 – 23 July 2014	550US\$	450US\$	430US\$	400US\$
<b>Sponsors &amp; Exhibitors</b>	<b>Contact</b> <a href="mailto:connie.m.white@gmail.com">connie.m.white@gmail.com</a>			

**One year TIEMS membership is included in the conference fee for non-TIEMS members.**

Conference registration includes:

- Conference program
- Attendance at all plenary and subject sessions
- Breakfast, lunch, and coffee breaks
- Welcome Reception and New Orleans field trip
- Abstracts and full papers of presentations in conference proceedings
- TIEMS membership.

Cancellation and refunds policy: we will refund the registration fee up to one month before the conference. If attendance is not possible because a visa is not obtained, we will refund the registration fee minus a 15% administrative charge, for cancellation at any time before the conference.

### CALL FOR PAPERS

Papers will be scheduled for 20 minute presentations as part of themed sessions. Topics considered include:

- Educational initiatives to share lessons and best practices, establish standards, and improve capabilities across the international emergency management community
- Knowledge bases to support international emergency management and response
- Use of social media, virtual reality, and other new technologies to improve international emergency preparedness and response
- Case histories and lessons learned from international preparedness and response activities
- Analyses of the effects of international climate, economics, and policies on emergency vulnerability, preparedness, and response.
- Other relevant topics will also be considered.

To be included in a paper session, please submit a 300 – word abstract to [Abstract Submission](#) by April 1, 2014. Abstracts will be approved by April 15, full paper drafts due May 15, with final papers due June 15, to be published in the conference proceedings.

### CONFERENCE CONTACTS

Connie White. Ph.D.  
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James C. Hagen, Ph.D.  
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St. Xavier University  
[jhphd50@aol.com](mailto:jhphd50@aol.com)

### THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Founded in 1910, The University of Southern Mississippi is a comprehensive doctoral and research-driven university with a proud history and an eye on the future. In just 100 years, we've grown from a small teachers' college into a premier research university that is a haven for the arts with a tradition of success in both academics and athletics. Southern Miss has a diverse student body of

approximately 17,000 students from 56 different countries, all 50 states and every corner of Mississippi. We offer undergraduate and graduate degree programs in six degree-granting colleges with more than 180 degree programs. A dual-campus university, Southern Miss serves students on campuses in Hattiesburg and Long Beach, in addition to six teaching and research sites in Mississippi. Characterized by history and tradition, the Hattiesburg campus sits on 300 acres in the heart of the Pine Belt. More than 180 buildings dot a landscape that has been transformed into a pedestrian-friendly environment for students, employees and visitors.

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## AnsuR Technologies

As we've done in the last few newsletters, we continue to profile interesting and ground breaking organizations within the Disaster management / Emergency Management realm. This month, we shine our spotlight on AnsuR Technologies in Norway. As their website says; "**AnsuR Technologies AS** researches, designs and sells innovative solutions for satellite and mobile wireless communications." ([www.ansur.no](http://www.ansur.no))



I had a quick interview with Dr. Harald Skinnemoen, Managing Director, Founder, Chairman of the Board and Company Owner; here are his response.

### 1) Please tell us about what Ansur Technologies does?

We develop innovative software for improving decision support during critical events, by offering optimal visual situational awareness remotely. Mobile satellite and TETRA networks are examples of systems use for mission critical operations, but where bandwidth can be too limited or too expensive to transfer photos and video, from the field during an event, in high resolution, just in case it is useful for a decision maker. Instead we allow field user to make observations available at a minimum bandwidth cost, but so that users can interactively pull the content details that are relevant for impact during ongoing operations. This turns traditional image transfer (photos/video) into interactive image communications, and cuts bandwidth requirements down to a fraction. This in turn enables users to work with visual data in a completely new way.

The system has one software part that runs with observers in the field, on PC or smartphones that captures, processes and sends observation to a server that in turn can be hosted securely where users prefer it to be.

### 2) Who is best suited to leverage your services and products?



Simply, anyone who needs to communicate; what happens, when and where it happens. TETRA and Mobile SatCom users, including communications from planes, UAVs, ships, remote locations. Our users are United Nations and Civil Protection during crisis and disaster management, but also police, other Government users and even insurance companies, whom use the geo- and time-tagging along with the fast transfer for obtaining trustful and reliable data.

**3) How does your solution work?**

We support photos, video clips, video stream, audio clips, audio stream, text and assessment template. All would be geo- and time- stamped, so that that can be integrated in maps of combined with Earth Observation data from satellite or UAVs.

Data would be captured in best possible resolution. If we take photos as an example, these could e.h. be captured in 20 MegaPixels or more. This could be represented in JPG format with perhaps 10 Mbyte files. On a satellite link with 5-10 USD/Mbyte cost, many photos could be expensive to transfer. Therefore, traditionally such photos are compressed substantially, but then again there could be details and content that is of relevance for operations.

Our ASIGN system compresses the original files too, quite a bit actually. Perhaps down to 20-30 kbyte, so hundreds of times smaller. But, in contrast to normal transfers, with interactive communications, an analyst can pull more detailed content by defining a region-of-interest on the initial preview. This then automatically goes back to the field client software, extracts that part of the photo, and sends it form the observer to the analyst automatically.

Thus we save both time, costm bandwidth – without sacrificing access to any relevant content.

**4) Is there an Ansur success story you're most proud of and if so, can you tell us about it?**

We have sold the system twice to Indonesia; the BNPB – which is the civil protection there. We have heard Indonesia has almost 2/3 of all the worlds' natural disasters, so this is a good users. They have purchased satcom terminals (BGAN) and even microdrones (UAVs), where we can transfer life as they fly, e.g. in search and rescue operations.

But the partner we definitely have worked most with is the United Nations, where they use our system as a ground observation management system, and integrate these with sapid mapping from satellites. The target is saving people after disasters. So this is a very nice application.

We have also sold and installed the system with European police.

**5) Can you tell us something about the A-Sight Project? What it is; who is involved and what will it deliver?**

While we come from the satellite world, these days we focus very much also on application

to TETRA. The A-SIGHT project is the framework for this. We will be able to do efficient photo communications over traditional TETRA, and video over TEDS. Specifically here, the video will be adaptive to the available bandwidth. We have already tested this in Norway with the Directorate for Emergency Communications, and results are good.

A-SIGHT will also work with the impact, in terms of how users can benefit operationally from the new technical capabilities for visual data communications, and see how live images can improve mission critical operations.

**6) How did you become involved with the TIEMS organization?**

In fact, we have been involved with TIEMS since our WISECOM project. Wisecom stands for Wireless Infrastructure over Satellite for Emergency Communications. This project started back in 2006. We initiated the project, but since it was at the time we founded the company, we did not lead it. We joined PSC Europa also in connection with that project. Since then, we have been involved with mission critical communication, later via the GEO-PICTURES project and now with the A-SIGHT project. In this project we finally succeeded to also start a project with K. Harald Drager, so this has of course reinforced our TIEMS involvement.

**7) Is there anything else you'd like our readers know?**

When we start demonstrating the performance of the system, we see there are many applications for this new way of communicating visual content. We try to take on fundamental theoretical challenges. The classic theory applied for digital communications (Shannon theory) deliberately does not concern itself with content and semantics. Thus it is very suitable for content-agnostic digital transmission. However, "true" communications as defined by other models is in fact an interactive process that involves content and impact. Most examples have been done with voice, and in this case it is important to know what to say. Find the words, make sure listeners understand and finally act upon them. We are working with this model also for images.

Note that I don't really distinguish very much between photos and video. On the technical side, this is a mere choice of how to code the images. The important issue for mission critical communications is that the images are updated sufficiently often to capture the relevant dynamics of a situation. This is something completely different than video coded for entertainment, like a movie, or photos that are meant to amaze you, like in Art, or in National Geographic Magazine.



One of the really exciting areas for us, in addition to the satellite and Tetra areas, is the use in small remotely piloted aircraft (aka UAVs), where most of these will carry cameras, but where live image transfer quickly becomes a challenge when flying them beyond line of sight or in disaster areas without broadband mobile connection. Since there are no people on board to spot objects on the ground, the visual data transfer becomes important, and it will

often also be important to be able to zoom in on such objects.

**8) If our readers would like more information, where can they go and who can they contact?**

There is a bit more information on our website, [www.ansur.no](http://www.ansur.no), but currently we have not released all details into the public domain. The best thing is to perhaps search for ASIGN and / GEO-PICTURES, in addition to AnsuR – or just drop med an email ([harald@ansur.no](mailto:harald@ansur.no) or [contact@ansur.no](mailto:contact@ansur.no)) and I'll be happy to prove more information. We have offices in Oslo and in Barcelona – so it's also possible to visit.

Thanks for talking to us, Harald!

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## AGENDA: CRISMA Second End User Workshop

**Organised in conjunction with the  
next PSCE conference**

**22 May 2014, Gothenburg -**

**Sweden**

**09:00 – 15:30**

**Modelling crisis management for improved  
preparedness and action**

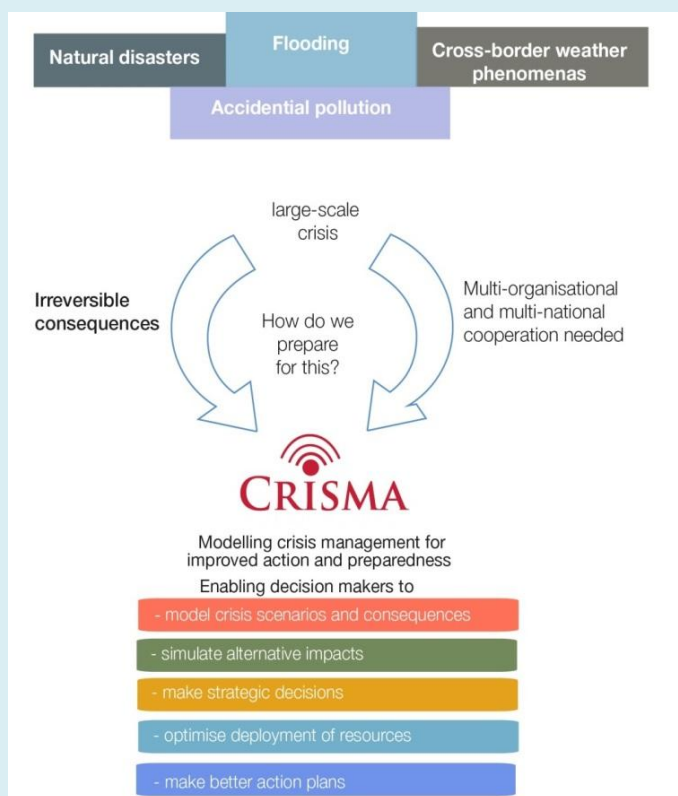
Are you a **decision maker** or a **crisis manager**  
in private or public sector?

Have you been looking for possibilities to  
compare alternatives in **short and long-term  
planning** and to evaluate possible effects of  
alternative actions and investments?

Would you like to **simulate** immediate human, societal and economic **consequences** in a case of  
large scale crisis scenarios?

Would you like to better **understand domino and multi-risk effects** of man-made and natural  
disasters?

The CRISMA project is an EU-FP7-funded research project that will provide an **integrated  
modelling system to simulate both, the most likely of crisis situations and more remote**



**scenarios, the required measures, and their effects.** The integrated modelling system will give opportunities to assess impacts of man-made and natural disasters.

The software developed by the CRISMA Consortium should **help decision makers and crisis managers to model possible crisis scenarios**, assess the consequences of an incident and optimise the deployment of resources necessary to resolve the crisis.

## AGENDA

### **CRISMA Second End User Workshop** **Organised in conjunction with the next PSCE conference** **22 May 2014, Gothenburg - Sweden** **09:00 – 15:30**

09:00 – 09:05	Opening, VTT and PSCE
09:05 – 09:45	Introduction to crisis management simulation and modelling, Anna-Mari Heikkilä, VTT and Denis Havlik, AIT
09:45 – 10:15	<b>Assessing Cascading Events and Time Dependent Vulnerability (Maria Polese, AMRA)</b>
10:15 – 10:45	<b>Simulating Resources Management and Logistics (NICE, TTU)</b>
<i>10:45 – 11:00</i>	<i>Coffee break and discussion</i>
11:00 – 11:30	<b>Assessing economic impacts (Susanna Kunttu, VTT)</b>
11:30 – 12:00	<b>An architecture for transferable applications (Sascha Schlobinski, CISMET)</b>
<i>12:00 – 13:00</i>	<i>Lunch Break</i>
13:00 – 13:30	<b>Geophysical Hazards Demonstration</b>
13:30 – 14:00	<b>Accidental Pollution Demonstration (Chaim Rafalowski, MDA)</b>
14:00 – 14:30	<b>Poster presentation of other demonstrations</b>
14:30 – 15:00	<b>“Play with crisis management simulation and modelling”</b>
15:00 – 15:30	Wrap-up of gathered feedback, next steps in the project <i>End of workshop</i>

The **CRISMA Workshop** will be held at  
Security Arena Lindholmen  
Lindholmospiren 5, 402 78 Göteborg  
[www.lindholmen.se](http://www.lindholmen.se)

*Participation is free of charge.*

Event organiser: **Public Safety Communication Europe (PSCE)**, Rue des Deux Eglises 39, 1000, Brussels, Belgium, Tel.: +32 (0) 2 738 07 63, Fax: +32 (0) 2 738 07 64, [secretariat@psc-europe.eu](mailto:secretariat@psc-europe.eu)

Follow us on **twitter** for more information: **@CRISMA\_Project**

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# THE COSMIC PROJECT



*-Hayley Watson-*

The [COSMIC project](#) (Contribution of Social Media in Crisis management) aims to assist first responders in using new ICT applications. COSMIC is a two-year project that is funded under the European Commission's Seventh Framework Programme FP7-SEC-2012 under grant agreement no. 312737. COSMIC will deliver a set of recommendations and best practices related to the exploitation of social media in emergency situations. This will be completed by addressing and analysing the roles of major stakeholders associated with crisis management and by reviewing their communication needs, infrastructure bottlenecks and security priorities during disasters.

As part of its work, COSMIC has recently released a briefing paper on the [“Use of new media in crisis situations”](#). This briefing paper provides an overview of the key findings from the completion of three reports relating to the use of new media in crisis situations, including an examination of existing information communication technologies (ICTs) and new media applications that being used for crisis management purposes. An exploration of the use of ICTs and new media applications in eight scenario case studies involving different types of crisis in Europe and Internationally, and a report on the adverse use and reliability of new media.

## Upcoming COSMIC events include:

- **21 May 2014:** COSMIC workshop on investigation the possible use of emerging technologies in crisis situations and an examination of political, social and industrial opportunities arising from the use of emerging technologies in crisis situations. The workshop will be help by PSCE in Gothenburg, Sweden.
- **4 September 2014:** COSMIC [International workshop](#) on involving citizens in emergency preparedness and response. The workshop will be hosted by Koç University Research Center for Anatolian Civilizations, in Istanbul, Turkey.

Further information about the COSMIC project and its activities can be found on the project website: <http://www.cosmic-project.eu/> .

You can also follow us on Twitter: [@COSMIC\\_FP7](#)





**CALL FOR PAPERS: The 17th International Symposium on Research in Attacks, Intrusions and Defenses (RAID 2014)**  
**Program Committee Invites you to contribute to the refereed papers.**

<http://www.raid2014.eu/cfp.html>

**Important Dates**

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Conference:	<b>Gothenburg, Sweden   September 24-26, 2014</b>
Paper Submission Deadline:	<b>April 1, 2014</b>
Paper Acceptance Notification:	<b>June 1, 2014</b>

The 17th International Symposium on Research in Attacks, Intrusions and Defenses aims at bringing together leading researchers and practitioners from academia, government, and industry to discuss novel research contributions related to any area of computer and information security.

As in previous years, all topics related to intrusion detection and prevention are within scope. In addition, topics of interest also include but are not limited to:

- Intrusion detection and prevention
- Malware and botnet analysis, detection, and mitigation
- Smartphone and other embedded systems security
- Network & active defenses
- Web application security
- New attacks against computers and networks
- Insider attack detection
- Formal models, analysis, and standards
- Deception systems and honeypots
- Vulnerability analysis
- Secure software development

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*The International Emergency Management Society ([www.tiems.org](http://www.tiems.org))*  
*Rue Des Deux Eglises 39, B - 1000 Brussels, Belgium, Tel: +32 2 286 80 38, Fax: +32 2 286 80 39*  
*E-mail: [r.miskuf@squaris.com](mailto:r.miskuf@squaris.com),*

- Machine learning for security
- Computer security visualization techniques
- Network exfiltration
- Online money laundering and underground economy
- Hardware vulnerabilities
- Binary analysis and reverse engineering
- Digital forensics
- Security and Privacy

## Organizing Committee

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General Chair:	Magnus Almgren, Chalmers University of Technology
Local Arrangement Chair:	Erland Jonsson, Chalmers University of Technology
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PC Co-Chair:	Herbert Bos, Vrije Universiteit, Amsterdam
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Sponsorship Chair:	Bosse Norrhem, Lindholmen Science Park

## Program Committee

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- Baris Coskun, AT&T Security Research Center, US
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- Aurelien Francillon, Eurecom, France
- Flavio D. Garcia, University of Birmingham, UK
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- Gernot Heiser, NICTA & University of New South Wales, Australia
- Sotiris Ioannidis, FORTH-ICS, Greece
- Xuxian Jiang, North Carolina State University, US
- Emmanouil Konstantinos Antonakakis, Georgia Tech, US
- Peng Lieu, Penn State University, US
- Paolo Milani Comparetti, Lastline Inc., US
- Damon McCoy, George Mason University, US
- Fabian Monroe, University of North Carolina at Chapel Hill, US
- Hamed Okhravi MIT Lincoln Labs, US
- Alina Oprea, RSA Laboratories, US
- Michalis Polychronakis, Columbia University, US
- Georgios Portokalidis, Stevens Institute of Technology, US
- Konrad Rieck, University of Göttingen, Germany
- William Robertson, Northeastern University, US
- Christian Rossow, RU Bochum, Germany
- Simha Sethumadhavan, Columbia University, US
- Kapil Singh, IBM Research, US
- Asia Slowinska, Vrije Universiteit Amsterdam, Netherlands
- Anil Somayaji, Carleton University, Canada

# **The MIRACLE Project**

## **-A Summary-**

Full Project Title: Mobile Laboratory Capacity for the Rapid Assessment of CBRN Threats  
Located within and outside the EU  
Coordination and Support Action  
Grant Agreement N°: 312885  
Start Date: 01/12/2013  
End Date: 31/05/2015

### **MIRACLE Partners:**

**Belgium** – Université catholique de Louvain (UCL) - Coordinator

**France** – Astrium (AST)

**Germany** – Bundesministerium der Verteidigung (IMB)

**Norway** – Forsvarets forskningsinstitutt (FFI)

**Sweden** – Totalförsvarets forskningsinstitut (FOI)

**The Netherlands** – Netherlands Forensic Institute (NFI)

**The Netherlands** - Rijksinstituut voor Volksgezondheid en Milieu \* National Institute for Public Health and the Environment (RIVM)

**Canada** – Health Canada (PHAC)

**United Kingdom** – Police Service of Northern Ireland (PSNI)

**Background:** In case of major intentional, accidental or natural CBRN incident, fast detection and identification of agents on scene are crucial to ensure adequate risk assessment, optimal risk management, and proper counter measures. Consequently, a determining factor is to bring a rapidly CRBN deployable diagnostic and forensic capacity as close as possible to the crisis area.

**Objective:** To harmonize the definition of a mobile CBRN laboratory, to define the needs, and subsequently to provide solutions for deployment of this capacity in- and outside the EU.

**Consortium:** This well balanced civilian and military consortium has a strong CBRN expertise as well as real operational expertise with mobile CBRN laboratories within and outside the EU (e.g., outbreaks in Kosovo or Africa, chemical threats in the Middle East and Africa). The expertise is further enhanced by the international cooperation with the Public Health Agency of Canada, which has deployed several times, inland and abroad, its own laboratory (e.g., Vancouver Olympic games, G8/G20 Toronto summit; successive

Ebola outbreaks in Africa). Accordingly, partners of this consortium are all potential end-users of this feasibility study.

**Methods and key results:** An evidence-based multidimensional matrix (type of CBRN threats, crisis magnitude and remote location, societal and psychological impact) will be used to define the scope, scenarios, and missions justifying the use of CBRN deployable capacities (WP1).

Accordingly, a thorough state of the art of existing capacities within the EU and gap analysis will be carried out, to identify actions for improvements. (WP2) An evidence-based approach will be used to assess the best possible organizational and operational architectures (e.g. modularity, scalability, flexibility, and interoperability), training and certification requirements, and ways to provide sustainability at optimal costs for the society (WP3). The respective role of national or international regulatory authorities and agencies will be reviewed in order to assess who could, should or already are stakeholders of CBRN mobile capacities and how to coordinate the deployment of these capacities with EU mechanisms activated during a major CBRN crisis. Accordingly, there will be a strong interaction with key EU stakeholders involved in the CBRN governance (Directorates-General, Health Security Committee, European Centre of Diseases Control, etc.). To be successful, the consortium will mobilize regional, national and international resources in order to assess the feasibility of rapidly deploying an inter-institutional EU capacity and delineating a straightforward interface with existing EU capabilities and expertise. A strong emphasis will also be put to be coherent and in line with other synergistic EU projects, co-funded by the European Commission European External Action Service initiative and European Defense Agency as well as non-EU initiatives. Practicalities (i.e. structures, equipment and functions including operational procedures, communication, logistics, forensics and related legal issues) will be assessed together with technological suppliers (e.g. Integrated Mission Group in Security CBRN Technical Area 6 and related industrial partners), and based on end-users experienced with CBRN issues (WP4). Building partnerships and cooperation with interested stakeholders (e.g., EU key actors, nations within and outside the EU in strong demand for this type of capacity) will be a specific task dedicated to the dissemination of the MIRACLE project (WP5).

The MIRACLE consortium will organise dedicated events to raise awareness of the project especially in view of increasing the involvement of the target demand side in the project activities. The following MIRACLE events have been scheduled:

- Workshop “Capacities & Gaps” (organiser IMB, June 25, 2014, Bundeswehr Medical Academy, Munich, Germany) and
- Workshop “Practicalities” (organiser NFI, October 14, 2014. Den Haag, the Netherlands)

Following the analysis of scenarios and existing projects and capabilities the workshops programmes will be developed to discuss and analyse current capability shortfalls and potential end-user relevant solutions. Representatives of the CBRN mobile laboratory technologies demand side, supply side and decision influencers will be invited to take active part in the workshops.

Two roundtable discussions will be organised in November 2014 and January 2015. Roundtable 1 will involve industry leaders across the EU, namely IMG-S – Integrated Mission Group for Security, Technical Area 6 CBRNE members). The supply side representatives will be asked to present their products/technologies/services related to CBRN mobile laboratories. Roundtable 2 will be comprised out of end-users and other relevant stakeholders within various EU member states. The demand side will be challenged by the list of available products/technologies/services and invited to express their views.

These roundtables will serve as a guide in determining which issues need to be addressed to assess the feasibility of the study along with encouraging industry wide cooperation on this topic.

Final MIRACLE Conference will take place in Brussels on April 2015 at the conclusion of the project. This conference will serve as an opportunity to present the projects final results to the appropriate parties including first responders, research and technology organisations, and decision makers within various EU agencies such as EUROPOL.

**MIRACLE Impact:** The project outcome will be a set of deliverables describing the needs and solutions for a mobile CBRN laboratory capacity. This will facilitate the architecture of an evidence-based mobile CBRN laboratory capacity based on flexibility, scalability, modularity, and interoperability. This project is deemed of essential added value for EU policy as it is also in line with European Security Research and Innovation Forum and the EU-CBRN Action Plan.



Project co-funded by the European Commission within the Seventh Framework  
Programme (2007-2013)



# COST Action Project

The COST Action Project is a supplement to the H2020 Initiative (*Ed Note: See the article "Secure Smart Cities and Societal Security Living Lab" in this newsletter*).

[www.cost.eu/about\\_cost/how\\_cost\\_works](http://www.cost.eu/about_cost/how_cost_works) proposal that will supplement the H2020.

Current potential partners (Canadian) are:

- Carleton University - <http://sprott.carleton.co> (Living Lab Concept development - <http://timreview.ca> )
- Canadian MASAS initiative participants experience as the one of possible use case for the Societal Security Living Lab ([www.iscramlive.org/ISCRAM2012/proceedings/306.pdf](http://www.iscramlive.org/ISCRAM2012/proceedings/306.pdf))

The deadline for the COST proposal submission is **11 April 2014**.

For more information, please contact: [siela@nic.fi](mailto:siela@nic.fi).

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## PSCE Conference - Gothenburg, Sweden - 2014

The next Public Safety Communication Europe (PSCE) Conference will be held on 20-21 May 2014 in Gothenburg (Sweden) and it will be organised with the support of Swedish Civil Contingencies Agency (MSB). CRISMA second end-users workshop will be held on 22 May 2014.

Forum for Public Safety Communication Europe is to foster, by consensus building, excellence in the development and use of public safety communications and information management systems as well as to improve the provision of public safety services and the safety of the citizens of Europe and the rest of the world.

The PSCE provides a common platform for researchers, industry and users to meet and network, learn about technologies used for public safety and influence policy makers at European level.

The PSCE Conference will focus on the following topics:

- |                             |                                   |
|-----------------------------|-----------------------------------|
| 1) Interoperability         | 3) Traffic security               |
| 2) Satellite communications | 4) Social media & COSMIC workshop |

To register to this event, please fill in the **registration form** available on the website ([www.psc-europe.eu](http://www.psc-europe.eu)) and send back to [adm@psc-europe.eu](mailto:adm@psc-europe.eu).

The Conference will take place at the Security Arena Lindholmen, which is a national arena for research and development in civil security with the aim of developing new or improved capabilities

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*The International Emergency Management Society ([www.tiems.org](http://www.tiems.org))*  
*Rue Des Deux Eglises 39, B - 1000 Brussels, Belgium, Tel: +32 2 286 80 38, Fax: +32 2 286 80 39*  
*E-mail: [r.miskuf@squaris.com](mailto:r.miskuf@squaris.com),*

within the Swedish crisis management system. The projects are conducted in broad collaboration between industry, university and public sector.

### **ACCOMMODATION**

Participants are advised to book individually and directly their hotel room at one of the following hotels where prior bookings have been made for this special event.

Note that the deadline for room reservation for both hotels is **22 April 2014**. After this date, hotels will release the rooms and further bookings will be possible upon availabilities.

#### **Radisson Blu Riverside Hotel**

In the vicinity of the Visual Arena Lindholmen, overlooking Gothenburg's harbour and the Göta River.

Guests are welcome to book directly on the hotel's website with the promotional code **PSCGRP**, already mentioned, by using this link: [PSC Group Hotel](#).

Should you wish to change the dates, fill in the requested dates and then press "Search Again" and fill out the appropriate details.

4 star hotel, 1.420 SEK – approx. 160 € /room/night (incl. breakfast, WI-FI and VAT).

Lindholmen bus stop and Lindholmospiren ferry stop are both 200m away, while Gothenburg Central station is 2.5 km from the hotel.

**Address:**

Lindholmospiren 4, SE-417 56 Gothenburg, Sweden

Tel: +46 (31) 383 40 00+46 (31) 383 40 00 FREE

#### **Hotel Riverton AB**

Set between Kungsgatan shopping street and the Göta Älv River. Rosenlund Ferry Terminal, 200m away, provides a free shuttle across the river every 5-10 min. and it is only a 5 min. trip to the Visual Arena Lindholmen.

Gothenburg Central Station is a 15-minute walk from the hotel, while the city's main street, Avenyn, is 10 minutes' walk away.

Guests are welcome to book directly by e-mail [riverton@riverton.se](mailto:riverton@riverton.se) or by telephone +46(0)31 750 10 00

+46(0)31 750 10 00 FREE , providing the promotional booking code **1146473** for reservations.

4 star hotel, 1.095 SEK – approx. 124 € /room/night (single, double/twin occupancy inclusive of breakfast and WI-FI).

**Address:**

Stora Badhusgatan 26, SE - 411 21 Gothenburg, Sweden

Tel: + 46 (0)31 750 10 00,

+ 46 (0)31 750 10 00 FREE Fax: + 46 (0)31 750 10 01

**For more information:** <http://www.psc-europe.eu/index.php?id=421>

Follow us on [twitter](#) @psc\_e

and [facebook](#) <https://www.facebook.com/PSCEForum>

## Call for Abstracts extended for the 5<sup>th</sup> International Disaster and Risk Conference IDRC Davos 2014!

Are you involved, or working in the field of Risk and Disaster Management?

The [Global Risk Forum GRF Davos](http://www.grf-davos.org) invites you to submit an abstract for oral presentation, poster presentation, a session or a workshop on one of the [conference topics](#) (see below) for the **5<sup>th</sup> International Disaster and Risk Conference IDRC Davos 2014**.

Submit your at the following URL: <https://www.conftool.pro/idrc2014/register.php> by 21<sup>st</sup> March 2014.

Conference topics (also see <http://idrc.info/programme/conference-topics/>):

- Disaster Preparedness & Response
- Country Risk Management
- Environmental & Ecological Risks
- Thinking the Unthinkable
- Technical Risks
- Urban Risks / Megacities
- Societal / Political Risks
- Resilience & Vulnerability
- Health Impacts & Medical Response
- Economics of Disasters
- Business Continuity
- Financial Tools for Risk Management
- Communication & Outreach in DRR
- Education, Research & Capacity Building

The 5th International Disaster and Risk Conference IDRC Davos 2014 is organised in close cooperation with the United Nations Office for Disaster Risk Reduction (UNISDR) and will be held under the theme "**Integrative Risk Management - The role of science, technology & practice**" from 24 - 28 August 2014 in Davos, Switzerland. More information is available at <http://idrc.info> . Call for Abstracts: <http://idrc.info/programme/call-for-abstracts/> open until 21<sup>st</sup> March 2014.



**5<sup>th</sup> International Disaster and Risk Conference**  
**Integrative Risk Management -**  
**The role of science, technology & practice**  
**24-28 August 2014 • Davos • Switzerland**

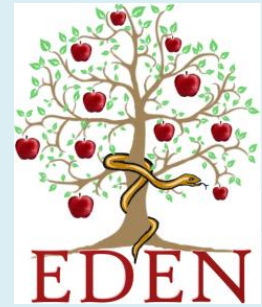
Organised by Global Risk Forum GRF Davos in collaboration with  
the United Nations Office for Disaster Risk Reduction UNISDR

**CALL FOR ABSTRACTS  
OPEN !**



# EDEN End-User Workshops

EDEN (End-user Driven Demo for CBRNe) is a Demonstration Project funded by the European Commission 7th Framework Research Programme on Secure Societies. The project started 1st September 2013 and represents one of the biggest research efforts ever made in the CBRNe area in the European Union, with the primary objective to provide solutions to improve CBRNe resilience and allow enhanced interoperability and effectiveness between CBRNe operators.



A distinctive feature of the EDEN project is the activation of its End-user, SME and Supplier Platforms. These are open bodies where end-users, SMEs or industry that are external to the EDEN Consortium can actively take part in the project with advice and feedback. EDEN aims to make CBRNe end-users the “driving force” of the different phases of the project, thus ensuring that the project provides solutions as close as possible to the real needs of the CBRNe end-user community.

To obtain end-user input and recommendations at an early stage of the project, four end-user workshops were organized within the first 5 months of EDEN:

- Two workshops in Brussels with end-users mainly from Western Europe, Poland and the Baltic were held the 26th November 2013 and the 29th of January 2014. The workshops were hosted by the Norwegian Defense Research Establishment (FFI). Both workshops had approximately 60 participants, with half of the participants consisting of end-users and the rest EDEN Consortium members. Some end-users were present at both workshops.
- A workshop in Bucharest with Romanian end-users was hosted by Omnidata 16<sup>th</sup> January 2014. Approximately 35 participants were present, with 80% end-users and the rest Consortium members.
- A workshop in Vienna with end-users from Austria and the neighboring countries was hosted by Istituto Affari Internazionali (IAI) 22<sup>nd</sup> January 2014. Approximately 30 participants attended, out of which two thirds were end-users.

The invited end-users were members of the EDEN End-user Platform and other end-users suggested by EDEN Consortium members.

In the workshops the EDEN project was presented, and the concepts of the EDEN Toolbox of Toolboxes and EDEN Store were explained before participants were asked to provide their recommendations for further toolbox development. For the afternoon sessions the participants were divided into groups to discuss the handling of different C, B, and RN incidents. All phases in the security cycle were covered: preparedness, prevention, response and recovery. From these discussions key recommendations, needs and gaps as seen from the end-users’ perspective were collected. The discussions were very fruitful and EDEN is most grateful to all end-users who participated in workshops.

End-users ranging from first responders to decision-makers, from research institutes to media and others, are welcome to join the EDEN End-user Platform at any time in order to assess their opportunity to participate in relevant activities, provide feedback, and gain access to EDEN mid-term and final results. The End-user Platform is led by IAI, and the primary contact is Federica Di Camillo ([f.dicamillo@iai.it](mailto:f.dicamillo@iai.it)), in support Paola Tessari ([p.tessari@iai.it](mailto:p.tessari@iai.it)).

Further information about the EDEN project and Platforms can be found at the EDEN website: <http://www.eden-fp7-security.eu/>

## Podcast Your Research for TIEMS!



By Samantha Ueno, *TIEMS Social Media Manager*

PodAcademy is independent, not-for-profit platform for free podcasts on academic research which aims to inform public debate and uncover intriguing and challenging new ideas. PodAcademy is keen to work with TIEMS to help create a strand of podcasts dedicated to spreading the word on the latest TIEMS Emergency management and disaster research. If you would like your research to be turned into a podcast please contact me Samantha Ueno TIEMS social media manager ([samantha.ueno@gmail.com](mailto:samantha.ueno@gmail.com)). Audio interviews can be done via Skype or face-to-face at TIEMS conferences.

To get a taste of what a podcasts is like, my first one about early seismology in Japan is here <http://podacademy.org/podcasts/earthquake-seismology-japan/>. Please note this is a monologue, which is more difficult to do than a research interview! Can you can guess how many sound effects I did myself?

Podcasts on PodAcademy are always done with a transcript with the podcast to assist non-native English speakers and allow links to promotion of books, websites or the research paper being cited.

I look forward to hearing from you and spreading the word of your work on this exciting online media!



# Preparing a Multi-Hazard Open Platform for Satellite Based Downstream Services

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Author: Cristina Párraga Niebla (DLR)

## Introduction

The foundations for GMES/Copernicus services have been established in the recent years through the coordination and management of the Global Monitoring for the Environment and Security (GMES) programme of the European Commission (EC), that was renamed to Copernicus in December 2012. The European Commission and the European Space Agency boosted significant developments in the area of Earth Observation (EO) infrastructure, through contracts for the space segment and through the European Environment Agency (EEA) and/or with Member States contracts for the in-situ sensor segment. Meanwhile, initial versions of the GMES/Copernicus services have been developed within the 7<sup>th</sup> Framework Programme (FP7) of the European Union, but also with national funding in some European countries.

As a result, a number of initiatives provide service concepts focusing on rapid mapping based on GMES/Copernicus data and enhanced situational awareness. This is achieved by combining the processed GMES/Copernicus data with modelling to elaborate several services, such as and retrospective assessments for decision making support. Other systems integrate Decision Support Services for specific types of disasters and geographical locations.

Given this context, a new EU-FP7 project has been launched recently under the SPACE programme 2013: **PHAROS – Project on a Multi-Hazard Open Platform for Satellite Based Downstream Services**.

PHAROS aims at designing and implementing an innovative multi-hazard open service platform. PHAROS integrates space-based observation, satellite communications and navigation (Galileo/GNSS) assets to provide sustainable services for a wide variety of users in multi-application domains, such as prediction/early detection of emergencies,

population alerting, environmental monitoring, crisis management and risk management. PHAROS targets several users, such as crisis managers, operators of critical infrastructures, insurance companies and academic/research institutions.

The development of the service platform is widely based on existing developments at the Consortium and will be focused on technology adaptation and transfer. While the service platform is designed to be multi-hazard, the specific developments for the pre-operational system and pilot demonstration will be focused on the forest fire scenario.



## Approach

PHAROS is conceived as a flexible, scalable modular system providing integrated services through one service platform that exploits capabilities from GMES/Copernicus, satellite communications and navigation to provide highly efficient tools and enhanced services to the following user profiles:

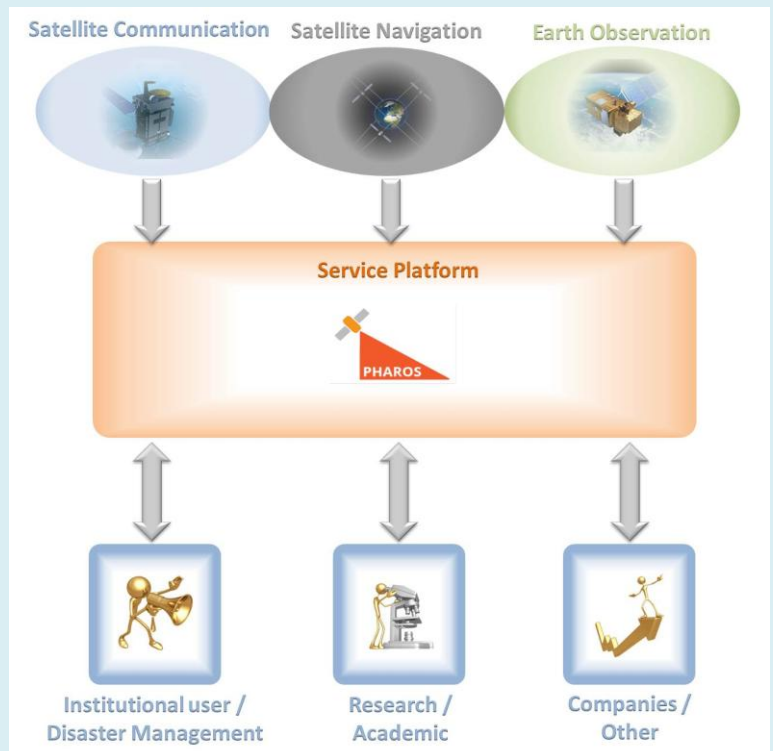
- Core user profile: civil protection and emergency management entities for environmental monitoring, risk assessment as well as detection, monitoring and management of emergency situations
- Secondary user profile: academic/research institutions, insurance companies, operators of critical infrastructures for environmental monitoring and risk assessment.

The capability of PHAROS to satisfy such different user profiles means an advantage in terms economies of scale for a sustainable service; hence, a service-centric system design is being adopted in the first project phase to satisfy different user profile expectation. Accordingly, the PHAROS approach starts by the conception of the service concept in close cooperation with targeted users and specification alongside with the related business aspects to achieve a sustainable service. These aspects determine the requirements for the system specification, design and development. Furthermore, the system development strategy will significantly contribute to the overall platform sustainability through the following properties:

- The first PHAROS pilot is largely based on the adaptation and reuse of sensor infrastructure, prototypes, operational systems and know-how and owned or operated (where applicable) by the Consortium partners. These components will be adapted to interoperate through the service platform and generalised to accommodate future developments;
- the evolution from offline situation assessment to the use of online and dynamic tools;
- the evolution from monolithic to distributed and networked systems;
- the capability to grow from single to multi-hazard.

PHAROS will cover all components of Early Warning Systems:

- Detection and monitoring through Earth Observation and in-situ sensors;
- Enhanced warning features by the application of data fusion from input data (EO data and in-situ sensors), simulations on hazard and risk development as well as knowledge of past situations and decision support;
- Communication and dissemination of information to the population by means of the integration of public alert capabilities;



- Response by means of the capability to manage resources to be deployed and communication with responders, holding a common operational picture.

The multi-hazard property of PHAROS lays on the modularity and scalability of services. The service platform itself is conceived to accommodate services, independently of the addressed hazard; however, some of the related systems and services are indeed hazard dependent, e.g. EO data and processing, situational assessment or risk modelling. To achieve a true multi-hazard service platform, generic components and workflows will be identified to create the core. The platform will be then populated with hazard specific services and logic processes in a stepped manner. This approach will allow early deployment and operation of PHAROS implementing a first set of services related to forest fire that can evolve to accommodate further hazard specific features to grow in scope.

### ***Heritage and Pilot Components***

The development of the pre-operational PHAROS service platform within the project lifetime is widely based on existing operational systems and services, prototypes and know-how at the Consortium. This development will be focused on technology adaptation and transfer to achieve the relevant level of maturity and foster synergies among the components, achieving enhanced and advanced services. While the service platform is designed to be multi-hazard, the specific developments for the pre-operational system and pilot demonstration will be focused on the forest fire scenario. Nevertheless, further features to cover any type of hazard can be integrated in the PHAROS platform through its standard-based interfaces and the proper definition of workflows in the platform.

The project Consortium is composed by the German Aerospace Center (represented by three research institutes), Tecnosylva, Avanti Communications, Space Hellas, Pau Costa Foundation, IQ Wireless, Eutelsat and Stichting Platform Mobiel Messaging. The PHAROS components based on the heritage in the project Consortium are the following:

### ***The Software Mediation Platform***

All components integrate through a central software mediation platform that is based on the GUARDIAN<sup>®</sup> platform by Space Hellas [1], which incorporates modern software technologies in the field of mediation software. In its core, GUARDIAN<sup>®</sup> makes use of a service bus, a workflows engine and a plug-in based architecture, which makes it ideal for integrating different subsystems.

### ***Satellite EO Data Acquisition and Processing***

The knowledge in EO data acquisition and processing in the German Remote Sensing Data Center is exploited in PHAROS. Images provided by new, or shortly launched, missions (e.g. FireBird TET-1 / BiROS, NPP VIIRS, Sentinels) will be analysed for inter-comparison with currently available EO data (e.g. MODIS, MSG SEVIRI) to test their capability in providing enhanced monitoring tools to fast detect and accurately locate fire.

### ***Advanced Space Sensors and High-Speed Optical Downlink***

The FireBird Mission [2] is a scientific DLR mission for infrared remote sensing to investigate high temperature events, generate fire products and verify new algorithms. FireBird is a tandem mission composed of the satellites TET-1 (successfully launched) and BiROS (launch planned for 2015). BiROS incorporates advanced algorithms for hot spot detection and several other experiments, including the

OSIRIS payload. OSIRIS is a free-space optical link payload created by the DLR Institute of Communications and Navigation, capable of transmitting up to 1 Gbps to a (transportable) optical ground station (TOGS) owned and operated by DLR. The demonstration of such high-speed downloading capability will mean a breakthrough for EO satellites, the capacity of which is limited by several factors, one of them the download rate.

### ***In-Situ Sensors***

The PHAROS pre-operational platform and pilot demonstration will be focused on the forest fire scenario. The terrestrial early warning system for forest fires FireWatch® [3] provided by IQ Wireless will be integrated in PHAROS as in-situ sensor. FireWatch® uses in-situ optical sensors for smoke detection. An optical sensor incorporates an embedded processor unit for fast image processing and provides an interface for transfer of control and alert data as well as image data to a control centre for further evaluation and action by the responsible operator. FireWatch® will be further enhanced in PHAROS by an energy-efficient satellite uplink based on the S-MIM standard [4][5], improving deployment flexibility and resilience.

### ***Energy-Efficient Satellite Uplink***

PHAROS will resort to the random access-based protocol of the S-MIM ETSI standard, which ensures effective uplink for sensing applications even in presence of peaks of traffic. Provided that PHAROS shall allow collection of in-situ data with bandwidth requirements that go beyond typical messaging scenarios, e.g. for the transmission of pictures from the FireWatch® system, in a prototype provided by Eutelsat and DLR, S-MIM will be adapted to be capable of operating in Ka-band, achieving higher bitrates than its S-band version for the satellite uplink, while preserving delivery reliability.

### ***Data Fusion and Decision Support***

The Data Fusion and Decision Support Services (DSS) that will be applied in PHAROS are based on the DSS developed during the German European Early Warning System (GITEWS) Project [4], which currently provides operational support for the Tsunami Early Warning System deployed in Indonesia. The DSS implements data and information fusion methods and algorithms for aggregating, analysing and visualising various sensor data streams as well as corresponding simulation and risk modelling results.

### ***Risk Modelling and Simulation***

The risk modelling and simulation subsystem is based on the forest fire simulation capabilities of Tecnosylva's Wildfire Analyst® product [7], in operational use in several fire agencies in Europe as well as in the USA. Wildfire Analyst® provides real time analysis of forest fire spread and behaviour, as well as the calculation of the evacuation time and the impact analysis during an incident. It provides results in real-time and allows the adjustment of simulations with field observed data as well as EO data. Furthermore it allows the calculation of the fire risk and threat of critical infrastructures based on its simulation capabilities.

### ***Advanced Features to Alert the Population***

PHAROS closes the gap between systems for disaster management and alert capability to the population by integrating them, thus allowing the optimisation of decision procedures to accelerate the dissemination of alerts where applicable. PHAROS leverages past developments in the FP6-CHORIST [8] and FP7-Alert4All [9] projects to integrate pre-operational alerting capabilities integrating the Alert4All alert gateway into the platform, building the interface to a Cell Broadcast Broker and integrating the alert message application. Further synergies with satellite navigation services are built in the area of alerting. The current developments in the context of the GNSS (Global Navigation Satellite System) emergency service can be exploited to disseminate alert messages to the population using EGNOS satellite. This is a very appealing option, given the institutional governance, disregarded from commercial interests, the robustness in front of disasters and the inherent location-based knowledge of receivers to limit the geographical reach of the alert.

## ***Acknowledgement***

The research leading to these results has received funding from the European Community's Seventh Framework Programme ([FP7/2007-2013]) under grant agreement n° [606982].

## ***References***

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- [8] [www.chorist.eu/](http://www.chorist.eu/)
- [9] [www.alert4all.eu](http://www.alert4all.eu)

## ***Contact***

[www.pharos-fp7.eu](http://www.pharos-fp7.eu)

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## Secure Smart Cities and Societal Security Living Lab

### Introduction

The **TIEMS Finland Association** promotes multidisciplinary cooperation and consolidation of national and Nordic efforts and expertise for establishing ICT System Living Laboratory for Societal Security\_ [www.laurea.fi/en/TIEMS/news-and-events/workshop\\_sept2013/Documents/LL%20presentation%20v2-1%20Read-Only-1%20V2.pdf](http://www.laurea.fi/en/TIEMS/news-and-events/workshop_sept2013/Documents/LL%20presentation%20v2-1%20Read-Only-1%20V2.pdf).

The Societal Security and Smart Cities topics of the Living Laboratory include but not limited to:

- Intelligent ICT systems for public safety, emergency and disaster relief management
- Smart border crossing at sea, land and air ports
- eHealth and Telemedicine
- Intelligent critical infrastructure monitoring and protections systems incl. safe intelligent traffic systems (ITS)
- Environmental monitoring
- Intelligent eGoverment systems for Safety and Security
- City planning and Monitoring systems and tools

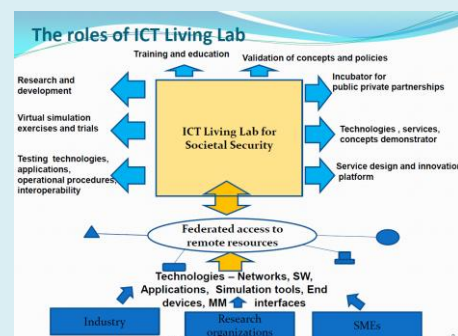
The Association promotes multidisciplinary dialog between Living Laboratories and societal, system, ICT research. It aims to facilitate transition to the new level of integration of ICT and Smart Systems into modern society by obtaining in depth understanding of societal processes and transferring them into smart systems design. This will be achieved by the convergence of:

- Techno-social and system research, risk analysis and risk communication research
- Data and experiences provided by Living Labs and experimental platforms
- The advanced ICT technologies and Ambiguous Computing including Future Internet, internet of things (IoT), intelligent heterogeneous networks and techno social-systems, smart environments.

The Association promotes system approach as a platform for the multidisciplinary dialog and the cross organizational and cross sectors interoperability at national and international levels. The Association is aiming to set up partnership between academia, research, industry and authorities for the multidisciplinary thematic topics and is aiming to establish a Living Lab permanent entity.

For more information please contact:

[siela@nic.fi](mailto:siela@nic.fi).





## Call for Participation in HORIZON 2020 Proposals

The TIEMS Finland Association invites new R&D projects ideas and expressions of interests (Eoi) for participation in HORIZON 2020 projects proposals (calls deadlines August in 2014) which will contribute to the development of **Federated Societal Security and Smart Cities Living Laboratory initiative** introduced by the Association:

([http://www.laurea.fi/en/TIEMS/news-and-events/workshop\\_sept2013/Documents/LL%20presentation%20v2-1%20Read-Only-1%20V2.pdf](http://www.laurea.fi/en/TIEMS/news-and-events/workshop_sept2013/Documents/LL%20presentation%20v2-1%20Read-Only-1%20V2.pdf) ).

The Association also invites Eoi from national and international ongoing projects and initiatives that are interested to contribute or collaborate with the Living Lab initiative. The Eoi should include call title and number, short team description and key expertise, areas of potential contribution, contact information. The Eoi should be sent to [siela@nic.fi](mailto:siela@nic.fi)

The Association will organize networking event for the interested organizations and experts in May 2014.

For more information please contact: [siela@nic.fi](mailto:siela@nic.fi)

The list of relevant calls objectives and invited projects topics:

### DISASTER-RESILIENCE: SAFEGUARDING AND SECURING SOCIETY

- DRS-04-2014 Feasibility study for strengthening capacity-building for health and security protection in case of large-scale pandemics.  
(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1070-drs-04-2014.html>)
- - DRS-07-2014 Crises and disaster resilience – operationalizing resilience concepts  
(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1072-drs-07-2014.html>)
- - DRS-18-2014 Interoperable next generation of broadband radio communication system for public safety and security - Pre-commercial Procurement (PcP)  
(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1076-drs-18-2014.html>)
- - - DRS-19-2014 Next generation emergency services  
(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1077-drs-19-2014.html>)
- - - DRS-05-2014 Situation awareness of Civil Protection decision-making solutions  
(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1071-drs-05-2014.html>)
- DRS-21-2014 Better understanding the links between culture, risk perception and disaster management  
(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1079-drs-21-2014.html>)

## **BORDER SECURITY AND EXTERNAL SECURITY**

### **- BES-12-2014**

**Enhancing the civilian conflict prevention and peace building capabilities of the EU**

(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1095-bes-12-2014.html>)

### **- BES-11-2014 Information management, systems and infrastructure for civilian EU External Actions**

(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1094-bes-11-2014.html>)

## **MOBILITY FOR GROWTH 2014 -2015**

**- MG-3.4-2014 Traffic safety analysis and integrated approach towards the safety of Vulnerable Road Users** (<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2631-mg-3.4-2014.html>)

**- MG-7.1-2014 Connectivity and information sharing for intelligent mobility**

(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2641-mg-7.1-2014.html>)

DIGITAL SECURITY: Cybersecurity, Privacy and Trust

**- DS-06-2014 Risk Management and Assurance Models**

(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1051-ds-06-2014.html>)

## **FIGHT AGAINST CRIME AND TERRORISM**

**- FCT-08-2014 Trans-national cooperation among public end-users in security research stakeholders** (<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1107-fct-08-2014.html>)

**- FCT-10-2014 Innovative solutions to counter security challenges connected with large urban environment**

(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1108-fct-10-2014.html>)

**- FCT-14-2014 Enhancing cooperation between law enforcement agencies and citizens - Community policing** (<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1112-fct-14-2014.htm>)

## **INFORMATION AND COMMUNICATION TECHNOLOGIES (Call in April 2014)**

**- ICT-02-2014 Smart System Integration**

(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/79-ict-02-2014.html>)

-- - **ICT-05-2014 Smart Networks and novel Internet Architectures**

(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/81-ict-05-2014.html>)

-- - **ICT-11-2014 FIRE+ (Future Internet Research & Experimentation)**

(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/85-ict-11-2014.html>)

-- - **ICT-32-2014 Cybersecurity, Trustworthy ICT**

(<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/96-ict-32-2014.html>)

## Next TIEMS Newsletter

The next TIEMS Newsletter is planned for August 2014.

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Issue no. 21 is planned for August 2014 and contributions are welcome. Please, contact one of the editors or TIEMS Secretariat if you have news, an article of interest or like to list coming events of interest for the global emergency and disaster community or like to advertise in this issue.

