European Civil Protection Forum 2015
6-7 May | Brussels

Partnership and Innovation
http://ec.europa.eu/cpforum2015 | #EUCivPro
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Dear civil protection colleagues,

As the Member of the European Commission tasked with crisis management, I would like to welcome you to the 2015 European Civil Protection Forum. This is an important event for our formidable civil protection and disaster management community. It is the moment when we take stock of our accomplishments, share our views, and stake out our course for the months and years ahead.

As a first time host, I have focussed the Forum on two themes close to my heart: partnership and innovation. They will feature prominently in my agenda for the coming years. I look forward to all the discussions, new ideas and approaches. There is great potential in our cooperation to find together some of the answers to the great challenges we are facing.

I cannot emphasise enough how essential it is to cooperate in difficult times. The economic and human impacts of crises are staggering. The evidence of the «new normal» points to more frequent and more intense disasters to come - disasters which can easily overwhelm local or national capacities to respond. We are witnessing this reality all too often, both in Europe and on the wider global stage.

I am proud to say that we Europeans realised the value added of cooperation in civil protection a long time ago. Through the Union Civil Protection Mechanism, European countries have been successfully collaborating for over a decade. With the new civil protection legislation, agreed last year at EU level, we now have the opportunity to further improve our actions and exploit all possible synergies. The new legislation introduces significant new ways of working. One such key innovation is the Voluntary Pool of Member States’ assets available for immediate deployment, which I will seek to further develop and strengthen. The new legislation also puts “prevention” on centre stage. This emphasis makes us pioneers of sorts, and I am happy to see that our approach to prevention has also found its way into the international arena, as elements of it are now reflected in the Sendai Framework for Disaster Risk Reduction 2015-2030.

I am committed to forging new partnerships across national boundaries. I am therefore extremely pleased to be able to announce, so early in my mandate, the expansion of our Mechanism family to two new members – Serbia and Turkey. I do not plan to stop here. I will look to Europe’s neighbourhood, and also the science and research communities, the private sector, and others, as our partners. The dialogue with new and existing partners at local, regional national and international levels will - I have no doubt - be a rich source of innovation and inspiration as we move ahead.

Together, we have already come a long way. The civil protection community is vibrant and dynamic. This is important work and I know I can count on your unswerving support, as you can count on mine.

Christos Stylianides,
European Commissioner for Humanitarian Aid and Crisis Management
European Civil Protection Forum 2015
Partnership & Innovation

Introduction

The European Civil Protection Forum is organised by the European Commission, Directorate General Humanitarian Aid and Civil Protection (DG ECHO) every two years. It is the largest recurring public event on European civil protection cooperation. The event brings together the European civil protection community with a view to take stock of common achievements in the disaster risk management field, to share best practices and ideas on issues of common European and international interest, and to discuss ways of addressing new challenges together. The Forum is also an important tool for strengthening cooperation with our strategic international partners and the European neighbourhood.

More than 700 participants from politics, academia, civil protection authorities, first emergency responders, international organisations, European Institutions and other stakeholders gathered in the last Civil Protection Forum in 2013.

This year’s Forum will feature a two-day conference and an indoor and outdoor exhibition, all under the central theme of “Partnership and Innovation”. The Partnership theme covers our traditional partners such as representatives of the European and UN institutions and authorities from around the world (i.e. civil protection and emergency response organisations in the EU Member States, the USA Federal Emergency Management Agency, Japan, Association of Southeast Asian Nations – ASEAN, European Neighbourhood countries), but also new partners, such as private companies, non-governmental organisations, academia, scientific institutes, European cities and regions, etc. The Innovation theme will focus on new technologies (e.g. unmanned aerial systems, social media, security, smart cities), as well as the links with research and development, and innovative ways of engaging with communities and various organisations.

The outdoor exhibition showcases the EU response to the Ebola outbreak in West Africa and Remotely Piloted Aircraft Systems (RPAS) in disaster management. As part of the EU response to the Ebola crisis, the Belgian laboratory that fought Ebola in Guinea will be explaining their work, along with colleagues from Luxembourg who supported the Belgian mission and are also providing a medical evacuation solution for humanitarian workers in case they get infected with the Ebola virus. A private company, Medic’Air, will also showcase their solutions for evacuations of suspected Ebola patients. RPAS used in disaster risk management will also be displayed, and several simulation exercises will take place.

The Union’s civil protection work is close to the European citizens’ daily lives and security. The vast majority of EU citizens (80%) agree that a coordinated EU action in dealing with disasters is more effective than actions by individual countries, according to a 2015 study carried out by the European Commission. The Commission’s work on civil protection receives strong support from all EU Member States and the European Parliament, and is perceived as a positive example of the added value that EU cooperation brings to European citizens.

Further information on the event is available at: http://ec.europa.eu/cpforum2015. On Twitter, you can follow us at: #EUCivPro.
**Wednesday, 6 May 2015**

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>12:30</td>
<td>Registration and opening of the indoor and outdoor exhibitions</td>
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<tr>
<td>14:00-14:30</td>
<td><strong>Opening address</strong>&lt;br&gt;Frans Timmermans, First Vice-President of the European Commission responsible for Better Regulation, Interinstitutional Relations, the Rule of Law and the Charter of Fundamental Rights</td>
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<tr>
<td>14:00-14:30</td>
<td><strong>Welcome address</strong>&lt;br&gt;Christos Stylianides, European Commissioner for Humanitarian Aid and Crisis Management&lt;br&gt;Rihards Kozlovsks, Minister for the Interior, Latvia</td>
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<tr>
<td>14:30-14:45</td>
<td><strong>Signing ceremony for the agreement on the participation of Turkey in the European Union Civil Protection Mechanism</strong></td>
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<tr>
<td>14:45-16:05</td>
<td><strong>Plenary session</strong>&lt;br&gt;Partnership and innovation in disaster management to promote growth and jobs</td>
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<tr>
<td>14:45-16:05</td>
<td>Margareta Wahlström, Special Representative of the United Nations’ Secretary-General for Disaster Risk Reduction and Head of UNISDR&lt;br&gt;Elisabetta Gardini, Member of the European Parliament&lt;br&gt;Walter Deffaa, Director-General for Regional and Urban Policy, European Commission&lt;br Monica Scatasta, Head of Division Water &amp; Waste Management, European Investment Bank&lt;br&gt;Moderator: Geoff Meade</td>
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<tr>
<td>16:05-16:30</td>
<td>Coffee break</td>
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<tr>
<td>16:30-18:00</td>
<td>Panel 1: Planning for the extraordinary&lt;br&gt;Sharing international experience on large-scale disasters&lt;br&gt;Panel 2: Understanding resilient cities&lt;br&gt;Disaster-proof infrastructure for urban communities&lt;br&gt;Panel 3: Empowering resilient citizens&lt;br&gt;Developing a culture of safety and resilience</td>
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<tr>
<td>16:30-18:00</td>
<td>Jean-Louis De Brouwer, Director for Humanitarian and Civil Protection Operations, DG ECHO, European Commission&lt;br&gt;Andrew Velasquez, Regional Administrator of Region V, Federal Emergency Management Agency, USA&lt;br&gt;Kenichiro Tachi, Director for International Coordination of River Engineering of the Water and Disaster Management Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan&lt;br&gt;Branko Dervodel, Deputy Director-General, Administration for Civil Protection and Disaster Relief, Slovenia&lt;br&gt;Lorenz Meyer-Minnemann, Section Head for Civil Preparedness, Operations Division, NATO&lt;br&gt;Moderator: Laura Shields</td>
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<td>16:30-18:00</td>
<td>Humberto Delgado Rosa, Director for Mainstreaming Adaptation &amp; Low Carbon Technology, DG Climate Action, European Commission&lt;br&gt;Jack Radisch, Project Manager High Level Risk Forum, OECD&lt;br&gt;Cristina D’Angelo, Director Civil Protection, Municipality of Rome, Italy&lt;br&gt;Kazım Gökhan Elgin, Coordinator of Istanbul Project Coordination Unit, Istanbul Seismic Risk Mitigation and Emergency Preparedness Project, Turkey&lt;br&gt;Pedro Crespo, Director for Urban Security and Emergencies Management, Indra&lt;br&gt;Christian Kromberg, Deputy Mayor, City of Essen, Germany&lt;br&gt;Moderator: Aminda Leigh</td>
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<td>16:30-18:00</td>
<td>Ádám Kósa, Member of the European Parliament&lt;br&gt;Maria Telhado, Head of Division, Department of Civil Protection, Municipality of Lisbon, Portugal&lt;br&gt;Charalampos Fassoulas, University of Crete – Natural History Museum of Crete, and project coordinator for RACCE and EVANDE (projects co-financed by DG ECHO), Greece&lt;br&gt;Rusudan Tevzadze, Expert of National Curricula Department, Ministry of Education and Science, Georgia&lt;br&gt;Marcus Årskog, Information Strategist, Civil Contingencies Agency (MSB), Sweden&lt;br&gt;Keiko Tamura, Professor at the Risk Management Office, Niigata University, Japan&lt;br&gt;Moderator: Anya Sitaram</td>
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<td>18:00-18:15</td>
<td>Break</td>
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<td>18:15-18:45</td>
<td>Special Session&lt;br&gt;The 2015 global assessment report on disaster risk reduction (GAR15): “Making development sustainable: the future of disaster risk management”&lt;br&gt;Margareta Wahlström, Special Representative of the United Nations’ Secretary-General for Disaster Risk Reduction and Head of UNISDR</td>
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<td>18:45-20:30</td>
<td>Walking dinner</td>
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**Thursday, 7 May 2015**

**09:00-10:30**

**Plenary session**

**New partnerships**

- **Florika Fink-Hooijer**, Director for Strategy, Policy and International Co-operation, DG ECHO, European Commission
- **Alicia Dela Rosa Bala**, Deputy Secretary General, ASEAN Socio-Cultural Community, ASEAN Secretariat
- **Timothy Manning**, Deputy Administrator for Protection and National Preparedness, Federal Emergency Management Agency, USA
- **José Luis Carneiro**, Chair of the Commission for Natural Resources, Committee of the Regions
- **Michael Adamson**, Chief Executive, British Red Cross, UK

*Moderator: Jacki Davis*

**10:40-12:00**

**Panel 4: Linking international disaster management actors**

*The new international crisis management landscape*

- **Juha Auvinen**, Head of the Emergency Response Unit (ERCC), DG ECHO
- **Jesper Holmer Lund**, Chief of Field Coordination Support Service and Secretary of INSARAG, UN OCHA
- **Leon Prop**, Director of the Red Cross EU Office, International Federation of Red Cross and Red Crescent Societies
- **Kenneth Thomas**, Head of Network Operations Management Coordination, Eurocontrol

*Moderator: Laura Shields*

**10:40-12:00**

**Panel 5: Partnering with the private sector**

*How emergency managers engage best with the private sector*

- **Wade Hoxtell**, Head of Operations at the Global Public Policy Institute (GPPI), Berlin, Germany
- **Ed Martinez**, President of the UPS Foundation, USA
- **Andrea Debbane**, Executive Director, Airbus Corporate Foundation, France
- **Alan Kurešević**, Vice-President Engineering, SES TechCom, Luxembourg
- **Jérôme Glorie**, Director-General for Civil Protection, Ministry for Home Affairs, Belgium
- **Didier Le Bret**, Director of the Crisis Center, Ministry of External Affairs, France

*Moderator: Jacki Davis*

**10:40-12:00**

**Panel 6: Science-based disaster management**

*Advancing disaster management through scientific support*

- **Delilah Al Khudhairy**, Head of Unit Global Security and Crisis Management, Joint Research Centre, European Commission
- **Graham Willmott**, Head of Unit Research Activities on Security, DG Migration and Home Affairs, European Commission
- **Scira Menoni**, Associate Professor at the Department of Architecture and Urban Studies, Politecnico de Milano, Italy
- **Merle Missoweit**, Senior Researcher at Fraunhofer Institute for Technological Trend Analysis, Scientific Coordinator of DRIVER (EU FP7 co-financed project), Germany
- **Andy Kirkman**, Deputy Director for Government Services, Met Office, United Kingdom

*Moderator: Rick Thompson*

**12:00-13:30**

*Buffet lunch*
### Thursday, 7 May 2015

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<td>Special address</td>
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<td><strong>Carlos Moedas</strong>, European Commissioner for Research, Science and Innovation</td>
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<tr>
<td>13:45-15:15</td>
<td>Plenary session</td>
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<td></td>
<td><strong>Innovation in disaster management</strong></td>
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<td></td>
<td>Civil protection Directors-General from Member States</td>
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<td></td>
<td><strong>Claus H. Sørensen</strong>, Director-General for Humanitarian Aid and Civil Protection, European Commission</td>
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<td><strong>Helena Lindberg</strong>, Director-General, Civil Contingencies Agency, Sweden</td>
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<td><strong>Laurent Prevost</strong>, Prefect, Director-General for Civil Security and Crisis Management, France</td>
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<td><strong>Franz-Josef Hammerl</strong>, Head of Crisis Management and Civil Defense, Federal Ministry of the Interior, Germany</td>
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<td><strong>Michel Feider</strong>, Director of the Rescue Services Agency, Luxembourg</td>
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<td><strong>Jadran Perinić</strong>, Director-General of the National Protection and Rescue Directorate, Croatia</td>
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<td><strong>Fuat Oktay</strong>, President, Prime Ministry Disaster &amp; Emergency Management Authority (AFAD), Turkey</td>
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<td><strong>Aminda Leigh</strong></td>
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<tr>
<td>13:30-13:45</td>
<td>Coffee break</td>
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<td>15:15-15:45</td>
<td>Coffee break</td>
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<tr>
<td>15:45-17:00</td>
<td>Panel 7: <strong>Innovation in the field</strong></td>
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<td>Using new technologies including unmanned aerial systems for assessment and mapping</td>
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<td><strong>Geert De Cubber</strong>, Head of UVC Research Activities, Royal Military Academy and Coordinator of ICARUS (EU FP7 co-financed project), Belgium</td>
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<td><strong>Henrik Bendixen</strong>, President and CEO of Sky-Watch, Denmark</td>
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<td><strong>Javier Gilabert</strong>, Associate Professor, Universidad Politécnica de Cartagena, Spain</td>
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<td><strong>Vicente de Frutos Cristóbal</strong>, Seconded National Expert, DG Mobility and Transport, European Commission</td>
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<td><strong>Nuno Nunes</strong>, Global Camp Coordination and Camp Management Cluster Coordinator, International Organization for Migration</td>
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<td><strong>Peter Spruyt</strong>, Scientific/ Technical Project Officer on Global security and crisis management, Joint Research Centre, European Commission</td>
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<td><strong>Geoff Meade</strong></td>
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<td>15:45-17:00</td>
<td>Panel 8: <strong>Innovative partnerships in training</strong></td>
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<td>Forward-looking cooperation between professional, academic and research communities</td>
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<td><strong>Albrecht Broemme</strong>, President of the Federal Agency for Technical Relief, Germany</td>
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<td><strong>Jakob Schmidt</strong>, Senior Vice President for Emergency, Africa and Middle East, Falck, Denmark</td>
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<td><strong>Fausto Marincioni</strong>, Senior Scientist on Disaster Risk Reduction, Università Politecnica delle Marche et Ancona, Italy</td>
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<td><strong>Philip Tosello</strong>, Director, New Technologies and Risk Control Centre (PONT), France</td>
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<td><strong>Gong Weibin</strong>, Director-General of the National Institute of Emergency Management of the Chinese Academy of Governance, and Dean of the EU China Institute of Emergency Management, China</td>
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<td><strong>Hans Das</strong>, Head of Unit Civil Protection Policy, DG ECHO, European Commission</td>
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<td><strong>Rick Thompson</strong></td>
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<td>15:45-17:00</td>
<td>Panel 9: <strong>Crisis communication</strong></td>
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<td>New communication technology and social media in disaster prevention, preparedness and response</td>
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<td><strong>Bart Bruelemans</strong>, Emergency Manager, City of Antwerp, Belgium</td>
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<td><strong>Kelly Saini</strong>, National Representative of Greece for Civil Protection to the European Union</td>
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<td><strong>Katja Evertz</strong>, Public Relations Officer, Federal Office for Civil Protection and Disaster Response, Germany</td>
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<td><strong>James Powell</strong>, U-Report Global Strategist &amp; Coordinator UNICEF Global Innovation Centre</td>
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<td><strong>Anya Sitaram</strong></td>
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<tr>
<td>17:10-17:30</td>
<td>Plenary Session</td>
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<td>17:10-17:30</td>
<td>Closing remarks: Way forward</td>
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<td><strong>Claus H. Sørensen</strong>, Director-General for Humanitarian Aid and Civil Protection, European Commission</td>
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Panel descriptions

Plenary Panel on Partnership and Innovation in Disaster Management to Promote Growth and Jobs

This session focuses on the disaster management agenda from the perspective of the EU policy on growth and jobs.

The impacts of disasters on economic growth and jobs are rising. In Europe, disasters have caused €15 billion in damages each year on average, over the past 10 years\(^1\). In 2013, Central Europe suffered once-in-a-100-years floods causing more than €17 billion\(^2\) overall direct and indirect costs. Research suggests that, due to climate change, by 2050 annual average economic losses caused by extreme floods could reach almost five times the 2013 values\(^3\). The 2011 disasters in Thailand and Japan affected businesses everywhere in the world, including in Europe.

Investing in the resilience of critical infrastructures and of our communities is important for growth, particularly as resilience goes hand in hand with innovation and new technologies thus creating more growth. Building resilience to climate change through actions aimed at improving risk management of floods, droughts, fires and coastal erosion, is also one of the domains of the recently launched EU Investment Plan. The links between economic growth and disaster risk management have also been recently underlined under the international Framework for Disaster Risk Reduction (Sendai Framework).

Speakers will reflect on the link between disaster management and economic growth, looking into issues such as the contribution of disaster management investments to technological development and innovation. Speakers will also address the work of UNISDR on resilience, the importance of the EU Cohesion Policy and of partnering with the private sector to building resilience at all levels, and the role of disaster management in the EU Investment Plan and the portfolio of projects of the European Investment Bank.

Panel 1
Planning for the extraordinary
Sharing international experience on large-scale disasters

This session will be the occasion to hear how international partners plan and prepare for major disasters with cascading effects, what lessons have been identified from previous such events in Europe and worldwide, and how this relates to the disaster preparedness undertaken in EU Member States.

Speakers will also tackle the effects of the new Solidarity Clause (article 222 of the Treaty on the Functioning of the EU), if and when invoked by an EU Member State, and look into how preparedness for addressing such events can be stepped up nationally and internationally.

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\(^1\) EEA Technical report 13/2010
\(^2\) AON Benfield (http://www.ambiental.co.uk/flood-related-insurance-losses-in-2013/)
\(^3\) www.enhanceproject.eu
Discussions on this panel will address the role and importance of regions, cities and municipalities in building urban resilience to disasters and climate change at local level, looking at concrete examples of local engagement, projects and the value of European and international relevant initiatives such as the UNISDR “Making Cities Resilient”, and the Covenant of Mayors and Mayors Adapt initiatives on Climate Change Adaptation. Speakers will also discuss the relevance and implementation of Climate Change Adaptation in urban settings, the role of the private sector and how the resilience of critical infrastructure often relies on the use of new technologies (Information technology, monitoring, disaster-proof equipment, etc.) providing opportunities but also creating new risks.

A culture of safety and resilience at individual and community levels are the primary building blocks for resilience of the whole society. This is where local organisations, municipalities and regions are mainly involved, often on the basis of an overall framework at national level. Approaches in addressing this topic vary depending on many factors, including e.g. the types of risks, social and economic circumstances, cultural context, and available expertise.

The panel discussions will focus on issues related to strategies for raising risk awareness, including all categories of the public (i.e. tourists, persons with disabilities, young people, ethnic minorities, etc.). Speakers will discuss the importance of a resilience curricula in schools, population alerting and reliance on various sources of information (public authorities vs social media), education/training strategies for all ages, building local community resilience support, and the use of innovative technologies (e.g. satellite-based communication systems, applications).

This session will address the new partnerships in the disaster management area in Europe and internationally, but also new ways of engaging with traditional partners. Key questions include: who are the partners that we should connect to, how we engage with them, how we share data of common interest and build relevant networks, in areas of prevention, preparedness and response to disasters.

Speakers will also address the cooperation between civil protection and humanitarian actors. They will deal with the contribution of Europe’s regions and cities to accomplishing the European disaster management agenda, and the models used by non-governmental organisations, such as the Red Cross National Societies, for engaging with the public authorities and the private sector. The importance of bringing together research and science actors with emergency managers and crisis decision makers will be discussed, along with initiatives aimed at boosting this partnership.
Panel 4

Linking international disaster management actors
The new international crisis management landscape

This panel will look into the way the Emergency Response Coordination Centre (ERCC) and the European Commission is cooperating with international disaster/crisis response actors, into changes occurred in the European and global disaster management landscape through reshaping the mandates and ways of working of some of the traditional actors, and will also look into preparedness strategies applied across different organisations.

Some of the relatively recent crises will be taken as examples, such as the Ebola crisis or the humanitarian situation created by the conflict in Syria. Speakers will discuss in particular issues related to the exchange of best practices, the facilitation of operational cooperation at the HQ and in the field, and in the building of international alliances on global policy issues. The European coordination mechanism for aviation crises will also be highlighted.

The coordination of response at regional and international level and the use of standardised response teams (i.e. EU Civil Protection Coordination and Assessment Teams and the response modules, IFRC’s Emergency Response Units, and WHO’s Foreign Medical Teams) and of the recently created European Emergency Response Capacity / Voluntary Pool of response capacities (pre-committed by the Participating States to the Civil Protection Mechanism for EU civil protection missions) will be highlighted.

Panel 5

Partnering with the private sector
How emergency managers engage best with the private sector

The private sector has for long been a major contributor to humanitarian action. At community level, companies frequently use their resources to assist people affected by disasters. New forms of private sector engagement, including partnerships between aid and emergency management agencies and corporations and business-driven innovation in a number of sectors are also developing. Preparedness in Europe can also be commonly pursued by private companies and emergency managers (i.e. jointly acquired equipment, planning, training, etc.).

The purpose of this panel is to underline on the basis of the experience shared by the speakers that there is untapped potential for increased partnering interactions between the private sector and civil protection and humanitarians communities at all levels (local/ national/European and international levels). On the basis of this experience sharing, the panel will discuss the challenges and collect suggestions and recommendations notably as regards the promotion of public private partnerships at European level.

Panel 6

Science-based disaster risk management
Advancing disaster management through scientific support

There is growing recognition of the importance of robust scientific and evidence-based methods for understanding risks and advancing early warning systems. Likewise, the value of national risk assessments as an effective and useful policy tool to inform decision makers at all levels and the public has become clear.
Better disaster management requires more multidisciplinary and sectorial partnerships between the scientific community, the public sector research organisations, industry and the user community including governmental departments. Disaster managers and first responders need to understand as well the contribution that research and development projects can bring to their work.

Speakers will discuss how to build sustainable and effective partnerships. Discussions will analyse the legislative, political, financial, technical and other barriers to this endeavour. The European Commission proposes the concept of a new Disaster Management Knowledge Centre to bring all relevant actors closer together and make information more accessible to all.

**Plenary Panel on Innovation in Disaster Risk Management**

Civil Protection Directors-General will be providing their national perspectives and examples on how to best integrate innovation in all its dimensions into their organisations. Topics will include: challenges in getting access to relevant innovative solutions and keeping up with developments, engaging with the research community on meeting innovation gaps for emergency managers and first responders, accommodating research and innovation into emergency management organisations, role of innovative technologies in the European Emergency Response Capacity (EERC/voluntary pool), and use of specific technologies for mapping, situational awareness and analysis, early warning, crisis communication, etc.

The Directors-General will also contemplate about further actions needed to bring innovation closer to emergency and disaster management organisations at all levels, and future action at European level for promoting innovation and research uptake.

The use of unmanned aerial systems (UASs) for civilian use is developing rapidly, and their use for disaster and emergency management follows the same path. Examples from around the world include: forest fires detection and mapping, infrastructure inspection, land and marine search and rescue, oil spill detection, post-disaster damage assessment (i.e. the Fukushima incident, the 2011 explosion that affected a large power generation plant in Cyprus, etc.).
the Haiyan typhoon in the Philippines, Balkan Floods 2014, forest fire in Lithuania 2014). In Europe, there are currently a number of countries using drones in their emergency management activities, as there is a thriving research delivering results for improved and new applications. However, there are also complex legal constraints to the employment of UASs.

This panel session discusses the different UASs deployed for disaster management, and those under deployment, identifying benefits, issues, challenges and areas where collective or coordinated actions offer benefits for all.

Social networks play an increasing role in communication and information before, during and after an emergency. Safety and preparedness information is used in standard ways in many emergency management and response organizations. At the same time, social networks are also used by the same organisations to gather information for early warning, situational awareness, damage assessment, mapping, etc. On the other hand, social media can also pose significant challenges as information reliability is unclear and evaluation of the data available requires specialised skills.

Speakers will explain their experience gained so far in the use of social media and crowd-sourcing, with examples from recent events in Europe and worldwide. The panel will also discuss how best to integrate new media into emergency preparedness and response, how to address the limits of using and communicating via social media, and how to make use of the expertise already existing in crowd-sourcing during disaster response (i.e. digital volunteers).

Panel 9

Crisis communication
New communication technology and social media in disaster prevention, preparedness and response

Mr. Claus H. Sørensen, Director General for Humanitarian Aid and Civil Protection (DG ECHO), will conclude the fifth edition of the European Civil Protection Forum. He will highlight the initial outcomes of the Forum, particularly those issues that will be recurrent topics in the needs of civil protection organisations that could be met through enhanced partnership. The panel will closely involve civil protection organisations, universities, research institutes and donors, in the discussion on improved sharing of training tools & frameworks, and the role of new technologies and innovation in this sector (i.e. simulation methods).

The revised European civil protection legislation acknowledged the importance of establishing a training network on disaster risk management (DM-Trainet). The network will pool together all European resources, create synergies and develop guidance, with the aim of enhancing our collective knowledge. Similar initiatives are flourishing in different sectors and regions: CEPOL, the European police college, contributes to European police cooperation through learning. In the US, the Resilience America Roundtable puts together resources from the National Academy of Science, Government and private companies.

Speakers will be discussing the prospects of DM-Trainet and other possible innovative partnerships between professionals, academic/research, and learning institutions. The panel will also address the needs of civil protection organisations that could be met through enhanced partnership. The panel will closely involve civil protection organisations, universities, research institutes and donors, in the discussion on improved sharing of training tools & frameworks, and the role of new technologies and innovation in this sector (i.e. simulation methods).
Speakers and Moderators

Michael Adamson
Chief Executive, British Red Cross

Michael Adamson is Chief Executive of the British Red Cross, the country’s leading voluntary crisis response organisation and part of the worldwide Red Cross and Red Crescent Movement. Prior to his current appointment, Mike was Managing Director of Operations, responsible for the leadership of the British Red Cross’ UK and international programmes and its advocacy work, overseeing a unified approach to all operations. He took on this role in 2010, and had previously held several other positions in the organisation between 1992 and 2003, including Head of International Programme Development, Director for the London and South-East Region, and Director of Strategy, Planning and Information Systems. In his years away from the organisation, Mike worked for the National Health Service as Director of Commissioning and Primary Care at a Primary Care Trust in Gloucestershire for three years, and spent five years as Managing Director for Services at the Royal National Institute for Deaf People (RNID – now Action on Hearing Loss). Mike is a board member of a regional drug and alcohol charity (Nelson Trust).

Delilah Al Khudhairy
Head of Unit Global Security and Crisis Management, Joint Research Centre, European Commission

Delilah Al Khudhairy, born in 1962, graduated with a first class honours B.Sc. (Eng.) and Ph.D. degrees in Materials Science Engineering from London University. She was employed at British Gas, UK, before joining in 1990 the European Commission’s in-house science reference, the Joint Research Centre. Her research areas have covered x-ray and electron scattering, experimental techniques, x-ray diffraction, numerical modelling, and remote sensing. In 2004, she was appointed as the head of the Global Security and Crisis Management Unit in the Joint Research Centre, the European Commission’s in-house science service. The Unit’s mission is to provide support to strengthening the EU’s Resilience to Crises and Disasters and the EU’s Aim to Promote Stability and Peace through the European Union Civil Protection Mechanism and serves as the key crisis management coordination centre at EU level. Mr Auvinen was Head of Unit for the EU’s Common Foreign and Security Policy (CFSP) Operations in the Commission’s Directorate General for External Relations in 2006-2012. Before his appointment as Head of Unit, he held a number of positions in the field of CFSP in the same Directorate General. Mr Auvinen served in the office of Mr Aldo Ajello, European Union Special Representative for the African Great Lakes Region (1999) and was Member of Cabinet of Mr Erkki Liikanen, European Commissioner for Budget and Administration (1998-99). Before joining the European Commission in 1997, Mr Auvinen was Professor of International Relations at the University of Lapland in Rovaniemi, Finland. He holds a degree of Doctor of Philosophy from the University of Sussex, Institute of Development Studies. Mr. Auvinen has published a number of articles on security and development in leading international academic journals and has held a number of teaching and research positions at the Department of Political Science at the University of Helsinki, where he received his Master’s and Licentiate Degrees in Political Science.

Juha Auvinen
Head of the Emergency Response Unit (ERCC), DG ECHO, European Commission

Juha Auvinen became Head of the Emergency Response Unit of the Directorate-General for Humanitarian Aid and Civil Protection (ECHO) of the European Commission in 2012. The Unit is responsible for coordinating European response to natural or man-made disasters both inside and outside the European Union. His unit hosts the Commission’s Emergency Response Coordination Centre (ERCC), which coordinates the delivery of assistance through the European Union Civil Protection Mechanism and serves as the key crisis management coordination centre at EU level. Mr Auvinen was Head of Unit for the EU’s Common Foreign and Security Policy (CFSP) Operations in the Commission’s Directorate General for External Relations in 2006-2012. Before his appointment as Head of Unit, he held a number of positions in the field of CFSP in the same Directorate General. Mr Auvinen served in the office of Mr Aldo Ajello, European Union Special Representative for the African Great Lakes Region (1999) and was Member of Cabinet of Mr Erkki Liikanen, European Commissioner for Budget and Administration (1998-99). Before joining the European Commission in 1997, Mr Auvinen was Professor of International Relations at the University of Lapland in Rovaniemi, Finland. He holds a degree of Doctor of Philosophy from the University of Sussex, Institute of Development Studies. Mr. Auvinen has published a number of articles on security and development in leading international academic journals and has held a number of teaching and research positions at the Department of Political Science at the University of Helsinki, where he received his Master’s and Licentiate Degrees in Political Science.

Alicia Dela Rosa Bala
Deputy Secretary General, ASEAN Socio-Cultural Community, ASEAN Secretariat

Prior to assuming the Deputy Secretary-General for ASEAN Socio-Cultural Community (ASCC) since September 2012, Alicia Dela Rosa Bala was the Undersecretary at the Department of Social Welfare and Development of the Philippines. She has been working in the field of social welfare for over thirty years. She was appointed as the Philippines’ Representative for Children Rights to the ASEAN Commission on the Promotion and Protection of the Rights of Women and Children (ACWC) in 2010. As an expert in the social welfare, community development, and social
Henrik Bendixen
President and CEO of Sky-Watch, Denmark

Henrik B. Bendixen is the President & CEO of Sky-Watch A/S, a leading Danish based research and manufacturing company within Unmanned Arial Systems (UAS) and Sensor Fusion Technologies. Sky-Watch strive for being a world leading manufacturer of technologies which provides reliable tactical data, that enables well-grounded decisions, in complex and challenged environments. Mr. Henrik B. Bendixen holds a Business Administration Diploma, and possess more than 25 years of international business development and management experience, from various business segment and ex-pat positions, including more than 20 years’ experience within procurement and system solutions, to a broad range of United Nations, NGO’s, EU and World Bank projects. Since 2011 he has held management positions within the evolving UAS industry and among others acted as a panelist at the World Bank, Understanding Risk Forum, London 2014 on the subject “Game of drones” – Exploring the potential of drone technology. Sky-Watch has its Huginn X1, UAS in service with civil services in several countries from Asia over Africa and Europe to America.

Albrecht Broemme
President of the Federal Agency for Technical Relief (THW), Germany

Albrecht Broemme, works since 2006 as President of Technisches Hilfswerk (THW), the German Federal Agency for Technical Relief governmental organization for disaster response in Germany and worldwide. The THW holds about 80,000 volunteers, 800 full-time employees, 700 THW stations and 8,400 vehicles. After finishing his Masters in electrical engineering he worked as a Senior Officer and later as Chief Fire Officer in the Berlin Fire Department. Furthermore, Mr. Broemme follows various functions in national and international societies, confederations and organizations, such as Past Chair of INSARAG Regional Group Africa/ Europe/ Middle East (UN International Search and Rescue Advisory Group), President of EDA (European Academy of Fire Protection), Board Member of GESA (German European Security Association), Honorary Member of DFV (German Fire Services Association).

Bart Bruelemans
Emergency Manager, City of Antwerp, Belgium

Bart Bruelemans is emergency manager of the city of Antwerp since January 2005. As the city emergency manager of the biggest city in Flanders (Belgium) he is working on all topics with regards to major incident management related to the city of Antwerp. risk identification and analysis, emergency planning and exercises, all safety related issues in the area of public safety including event related safety. As a voluntary collaborator in the domain of first aid on events, Bart has already an experience of more than 20 years in event related safety (e.g. Pukkelpop, Tomorrowland...). Bart holds a master degree of the University of Antwerp as Commercial Engineer. He holds a post-graduate degree in emergency management and followed a masterclass in Risk- and Crisismanagement. In those latter two courses he is a trainer in some modules. With a professional background in ICT, Bart is also involved in ICT related projects in the domain of emergency management (e.g. OSR, XVR and NOKEOS). As member of the NOKEOS - CALAHAN project team he received an IAEM award in the category “Partners in Preparedness” in 2009. Bart is also involved in the use of social media during incidents.

José Luís Carneiro
Chair of the Commission for Natural Resources, Committee of the Regions

José Luís Carneiro, born 1971, has a Degree in International Relations and a Masters in African Studies. Already in 1993, he joined the Socialist Party (PS). He led the District Committee, worked as advisor to the Secretary of State for the Internal Affairs Minister and as head of the Office at PS Parliamentary Group. In 2003, he began his doctoral thesis in Political Sciences and Administration. In 2005 he was elected as Deputy, as Mayor of Baião and as a member of National Commission for Foreign Affairs. He was re-elected in re-elected Mayor of Baião in the years 2009 and 2013 and worked as President of PS Porto District and further on as President of the Portuguese Association of Socialists Mayors. Since 2015 he is President of the NAT Commission, at the Committee of the Regions.
Pedro Crespo is the Head of the Urban Security and Emergencies Management department at Indra since 2007. This department is focused on the design and implementation of Emergency Management Systems, which have been developed for several customers all over the world. Relevant centers, where the systems were deployed during this time include CISEM (Madrid), CUC (Buenos Aires), and ERCC (Brussels) among others. Pedro Crespo is a telecommunication engineer, CISM and member of Engineer Ireland, among other certifications. He began his career inside the Communications Electronic Warfare Division at Indra, in which he was dedicated to research, design and development of firmware for communications, detection and deception systems applied to civil and military fields. Later he participated in the founding of the IP Sistemas company. This company was engaged in IT services for IP and network applications, with special focus on Cybersecurity, Pedro was CTO and stockholder. This company was integrate into Indra in 2006. Pedro also spent several years in teaching assignments at Polytechnic University of Madrid, specifically as a professor in the Department of Applied Mathematics, Faculty of Informatics.

Cristina D’Angelo graduated in Civil Engineering and obtained a Master’s Degree in “Safety Engineering” at the University of “La Sapienza” of Rome. Following a public competition she was appointed as executive officer responsible for the certification and testing of “Fire Reaction” in the laboratory of chemistry of the Research Centre del Centro and later for the Passive Protection Area of the Central Office for Prevention and Technical Safety. Since 2004, she has been working in the same central administration as executive regent of the Investigative Firefighting Unit (NIA), becoming Executive Director since 2006. Afterwards she covered the position of Provincial Commander for the VVF Latina and the position of Head of External Communications of the National Fire Brigade. In November 2015 she was nominated as Director of the Rome Civil Protection Unit. Since 1996 she has been a member of UNI of the “Fire Response” and “Toxic reactions in case of fire” groups and participated in CEN field activities. She is also coordinator and member of workgroups and committees of the CNVVF and of research activities and monitoring in the field of Fire Investigation. Further, she has published many scientific articles and is lecturer at national and international conferences on the topic of fire investigation. She is member of the Regional Technical Committee (CTR), pursuant to Legislative Decree 139/2006, involved in issues related to Fire Prevention and activities at high risk of accident.

Hans Das joined the European Commission in 2004. As a policy officer in the Civil Protection Unit, he drafted and negotiated the 2007 European civil protection legislation. He was promoted to Deputy Head of Unit in January 2007 and became Acting Head of Unit in October 2009. In May 2010, he was appointed as the Head of DG ECHO’s Emergency Response Unit, which included the EC Monitoring and Information Centre (MIC – later transformed into the ERCC). In March 2012, he was appointed Head of the Civil Protection Policy Unit, which is responsible for policy development and international cooperation. In this capacity, he has overseen the preparation and negotiation of the new 2014 European civil protection legislation and is in charge of developing civil protection policy and international cooperation. Previously, Hans Das was Legal Officer at the United Nations Housing and Property Directorate in Kosovo (1999-2000) and Head of the Legal Department in the International Commission for Real Property Claims of Refugees and Displaced persons (CRPC), established by the Dayton Peace Agreement, in Bosnia and Herzegovina (1997-1999). He holds a Ph.D. degree in public international law and also worked as a researcher at the department of international law of Leuven University (1995-1997 and 2001-2004) and as an international desk at the foreign affairs department of the Ministry of the Flemish Community of Belgium (2000-2001).

Jacki Davis is a leading commentator and analyst on European Union affairs. She is an experienced journalist, speaker and moderator of high-level events both in Brussels and in EU national capitals, the editor of many publications, a regular broadcaster on television and radio news programmes, and a Senior Adviser to the European Policy Centre think tank. Jacki has been based in Brussels for 23 years, and was previously Communications Director of the European Policy Centre; editor-in-chief of E!Sharp, a magazine on the EU launched in 2001; and launch editor of European Voice, a Brussels-based weekly newspaper on EU affairs owned by The Economist Group, from 1995-2000.
**Andrea Debbane**
*Executive Director, Airbus Corporate Foundation*

Andrea Debbane is Executive Director of the Airbus Foundation. The foundation includes the three key divisions of the group as founding members: Airbus commercial aviation, helicopters and defence and space. The foundation operates internationally, supporting in particular, the humanitarian community through the use of its products and services as well as inspiring and preparing youth for the challenges of tomorrow. Andrea joined Airbus in 2003 as head of communications strategy and later served as head of environment affairs before joining the foundation. She has triple nationality: Belgian, British and Canadian and lives in Toulouse, France. Before joining Airbus, Andrea worked for the Coca-Cola Company in Japan and Asia and started her career with the Canadian Federal Government in Ottawa, Canada in the area of technology policy. Andrea has a BA from Concordia University in Montreal, Canada, a Masters from Waseda University in Tokyo, Japan and an MBA from IMD, Lausanne.

**Jean-Louis De Brouwer**
*Director for Humanitarian and Civil Protection Operations, DG ECHO, European Commission*

Jean-Louis De Brouwer, a Belgian, is Director of Operations in the European Commission’s Humanitarian Aid and Civil Protection department (ECHO). He joined ECHO in November 2012, having previously been Director in charge of the coordination of employment politics in the Commission’s department for Employment and Social Affairs. Prior to that, he spent 18 years in the Justice and Home Affairs department, specialising in migration and asylum questions, latterly as Director in charge of border and visa issues. Before joining the European Commission, Mr De Brouwer worked in the Belgian civil service (Ministry of Economic Affairs and Ministry of Home Affairs). Mr De Brouwer has Masters Degrees in Law and Sociology from the Catholic University in Louvain, where he also did his undergraduate degree in Political Sciences. He is a lecturer in International Relations and EU Affairs at the same university.

**Geert De Cubber**
*Head of UVC Research Activities, Royal Military Academy, Coordinator of ICARUS (EU FP7 co-financed project), Belgium*

Geert De Cubber was born on February 13, 1979 in Halle, Belgium. In 2001, he received the degree of Master in Engineering at the Vrije Universiteit Brussel, with specialization Electro-Mechanical Engineering. He then obtained a PhD. for his research in the field of 3-dimensional reconstruction of natural scenes perceived by mobile robots. This PhD. and the associated research project were part of a joint research effort between the Vrije Universiteit Brussel and the Belgian Royal Military Academy (RMA). Within the Unmanned Vehicle Centre of RMA, Geert’s main task is to apply computer vision techniques to mobile robots, rendering these robots able to perceive, analyse, and understand their environment. More specifically, three-dimensional reconstruction and cognitive vision approaches are investigated with the aim to port the capabilities of human eyesight to intelligent robots. Currently, Geert is the coordinator of the EU-FP7-ICARUS project (global budget: 17.5M€) which deals with the development of unmanned tools (aerial, ground and marine robots) which can assist search and rescue workers to save human survivors after a major crisis (earthquake, tsunami, typhoon, shipwreck, ...). The practical reality in the field shows that unmanned search and rescue tools have great difficulty finding their way to the end-users. The ICARUS project addresses this issue, aiming to bridge the gap between the research community and end-users. This is objective is achieved by developing innovative unmanned search and rescue tools in close collaboration with end-users. These tools are validated by end-users under realistic operating conditions and via real deployment missions.

**Vicente de Frutos Cristóbal**
*Seconded National Expert, DG Mobility and Transport, European Commission*

Vicente de Frutos Cristóbal holds a Master Degree in Airspace Engineering (2004) and a Diploma in Business Administration (2011). After working for AIRBUS as system engineer for airplanes A380 and A400M, he joined INTA,
the Spanish Ministry of Defence aerospace research centre, where he worked as project manager for several research projects dealing with RPAS and Air Traffic Management technology. Currently he works as Seconded National Expert for the European Commission, DG Mobility and Transport, Single European Sky unit, where he deals with the SESAR programme and RPAS integration into non-segregated airspace.

**Humberto Delgado Rosa**

*Director for Mainstreaming Adaptation & Low Carbon Technology, DG Climate Action, European Commission*

**Humberto Delgado Rosa** is the Director for mainstreaming adaptation and low carbon technology in DG Climate Action, European Commission, since January 2012. He has relevant experience in European and international environmental policy, particularly in climate change issues. He served as Secretary of State for the Environment of Portugal from March 2005 to June 2011. In 2007 he was EU lead negotiator for the UN Climate Change Conference, during the Portuguese Presidency of the EU Council. Between 1995 and 2002 he was advisor for environmental matters to the Prime Minister of Portugal.

H. Delgado Rosa holds a PhD in Evolutionary Biology, and was a professor and researcher at the University of Lisbon, with experience in animal biology, biodiversity and life science ethics. Born in Lisbon in 1960, he is the father of two, and he is fluent in English, French and Spanish.

**Branko Dervodel**

*Deputy Director General, Administration for Civil Protection and Disaster Relief, Slovenia*

**Branko Dervodel**, Deputy Director General in the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief, with a University Degree in biology, has been active in the fields of defence and civil protection since 1991 in authority and managerial positions, initially in the municipality of Ravne in Carinthia region, then in Slovenj Gradec at the regional level and, since 2002, at the state level, as Deputy Director General. His key tasks and assignments are co-conducting and managing the Administration and involvement in the activities of Slovenia in the international arena (e.g. The Disaster Preparedness and Prevention Initiative for South Eastern Europe, the Alpine Convention) of which undoubtedly stand out the successful Presidency of the EU Council working Group on Civil Protection during the first half of 2008 and the leadership of the consortium implementing the EU IPA Civil Protection Programme on cooperation with candidate and potential candidates during the last four years.

**Katja Evertz**

*Federal Office for Civil Protection and Disaster Response, Germany*

**Katja Evertz** is currently a Public Relations Officer for the German Federal Office of Civil Protection and Disaster Assistance (BBK). Her work focusses on digital communication and social media in civil protection as well as risk and crisis communication. She oversees the BBK’s Twitter activities as well as other projects with a digital focus. Katja Evertz has background in both journalism (radio and online) and PR. She started her career as a copywriter and editor in a communications agency, where she became editorial director in 2009. Starting two years later, she was in charge of implementing and advancing a social media strategy as Web and Social Media Officer at the University of St.Gallen (Switzerland). Ms. Evertz has a graduate degree in American Studies, Journalism and Psychology from the University of Leipzig.

**Kazım Gökhan Elgin**

*Coordinator of Istanbul Project Coordination Unit, Istanbul Seismic Risk Mitigation and Emergency Preparedness Project, Turkey*

**Kazım Gökhan Elgin** was born in 1975. He graduated from Middle East Technical University, Faculty of Civil Engineering in 1998. After his graduation, he completed his M.Sc. in Business Administration Section. He is currently attending to a Ph. D programme at Gebze High Technology Institute, Business Administration Section. During 1998-2000 he worked as civil engineer for a foreign company and was responsible for the preparation of the retrofitting designs of selected hospitals in Istanbul and Izmir in Turkey. In 2000 he started working at Prime Ministry Project Implementation Unit as a “Coordinator” for the implementation of the World Bank funded “Marmara Earthquake Emergency Reconstruction Project (MEER). Since 2006, he is founding director of Istanbul Project Coordination Unit (IPCU) leading the international organizations (World Bank, European Investment Bank, Council Of Europe Development Bank, Islamic Development Bank) funded Istanbul Seismic Risk Mitigation and Emergency Management Project (ISMEP) with a budget of 1.5 Billion Euro that aims to improve the city of Istanbul’s preparedness for a potential earthquake through main components as: enhancing the institutional and technical capacity for disaster management and emergency response, strengthening critical public facilities especially schools & hospitals for earthquake resistance, and supporting measures for better enforcement of building codes and land use plans in the municipalities. Kazım Gökhan Elgin is a frequent international speaker. He has been featured by several media organizations, including CNN, the New York Times and he also has a speech at United Nations General Assembly on 12th April 2012.
Charalampos G. Fassoulas, holding a Diploma in Geology and a PhD in Tectonics, currently works as Special Laboratory Academic Staff at University of Crete and as Head of the Geodiversity Department of Natural History Museum of Crete, Greece. He is member in many International and Hellenic scientific Associations and Societies, of UNESCO’s expert team on Geoparks and Senior researcher of scientific and applied projects and many research studies. His recent project engagement is as Coordinator of RACCE (ended) and EVANDE (running) project, Beneficiary Coordinator in E-pres (running) and Senior researcher in PATCH (ended), RISK (ended) and CP-model (running) projects, all funded by Civil Protection financial instrument of EC. He is author or coauthor of more than 100 scientific and popular publications or proceedings volumes and reviewer in several international journals.

Michel Feider, born 24 September 1955 Wiltz (Grand-Duchy of Luxembourg) studied Chemistry at the University of Sarrebruck, Germany, and did his PhD in Analytical Chemistry and Radiochemistry. He worked as a scientific assistant at the University of Sarrebruck in the Department in Radiochemistry and afterwards as scientific expert in the radiation protection department at the Directorate of Health. He focuses on natural and artificial radioactivity in the environment and nuclear emergency response planning and is a designated member of several expert groups on e.g. the Euratom Treaty, IAEA, EC or OECD. Since 2004 he is the Director of the Luxembourg Rescue Services Agency (Administration des services de secours - ASS), subordinate to the Minister of Home Affairs, responsible for coordination of the intervention units (civil protection, fire brigades and medical teams). ASS leads rescue operations and is responsible for implementing all the necessary measures and means, which must be taken in order to protect and supply aid to the population and to safeguard the national inheritance and other assets.

Florika Fink-Hooijer is the Director for Strategy, Policy and International Co-operation at the Directorate General for Humanitarian Aid and Civil Protection. Being a lawyer by training, her career focussed on foreign external policy and security matters and in particular on crisis management, conflict prevention and disaster risk management. She further has in depth experience in comprehensive external policy coordination, internal market matters and justice and home affairs. Dr. Fink-Hooijer was a member of cabinet of the former Commissioners M. Wulff-Mathies (regional policy) and F. Bolkestein (internal market & taxation) and Head of Cabinet of Commissioner K. Georgieva (humanitarian aid, international cooperation and crisis response).

Elisabetta Gardini is the Head of the EPP Italian Delegation – Forza Italia in the European Parliament since July 2014. Gardini was elected Member of the European Parliament in 2008 in North-East Constituency and during the previous legislative term she was the Rapporteur of the Union Civil Protection Mechanism legislation. In March 2015 she took part as Member of the EU delegation to the Ministerial Round Table “REDUcing RISK IN URBAN SETTINGS” at the 3rd World Conference on Disaster Risk Reduction (Sendai, Japan). Before becoming an MEP, she was Member of the Veneto Regional Council (2005-2006) and Member of the Italian Parliament from 2006 to 2008 where she has been appointed as Secretary of Social Affairs Committee in the Italian Chamber of Deputies.

Javier Gilabert is at the Department of Chemical & Environmental Engineering - Universidad Politécnica de Cartagena (UPCT), Spain. With a biological oceanography background he studied plankton dynamics from an interdisciplinary point of view: from physical (hydrodynamics) to chemical (nutrient diffusion) to biological processes. Projects concerning these aspects were carried out at varying space and time scales: from coastal lagoons – the Mar Menor (SE Spain) – to the Mediterranean Sea to the Atlantic Ocean (90º latitudinal transects). With expertise in coastal hydrodynamic modelling he is currently co-director of the Underwater Vehicles Laboratory (LVS) at the UPCT and PI of the EU DG-ECHO co-financed project “Underwater Robotics ready for Oil Spill” making available a fleet of underwater, surface and aerial autonomous vehicles to monitor oil in-water plumes.

Jérôme Glorie has headed the Belgian Directorate-general for Civil Protection (DGCP) since 2009. Among its most
important challenges, the DGCP is currently implementing a reform of public rescue services (fire brigades and federal civil protection) as well as the ambitious 112-project. Jérôme Glorie holds Masters degrees in both Law and Criminology. Before entering the Belgian public service, his career started as a lawyer at the Brussels bar. He has previously worked for both the federal Home Affairs Ministry as well as the Ministry of Justice, specializing in security issues. Before being appointed as Director-General at the Belgian DGCP, he headed the national Belgian Crisis Centre (CGCCC) and the Directorate-General for Security and Prevention Policy.

Weibin Gong
Director General of the National Institute of Emergency Management of the Chinese Academy of Governance, Dean of the EU China Institute of Emergency Management, China

Weibin Gong, born in 1965 in Anhui Province of China, is Director General of the National Institute of Emergency Management (NIEM/CEIEM) of the Chinese Academy of Governance (CAG) and Dean of the EU China Institute of Emergency Management (CEIEM/CAG). He also serves as the Deputy President of China Society of Emergency Management. As a professor and doctoral supervisor, his main areas of research are social policy, crisis management and governance. His three monographs include the **Outgoing Employment of Labor Force and the Change of Rural Society, Social changes and Choice of Institution, Public Crisis Management** and several translations have been published in China. Besides, he has delivered lectures for Chinese leading officials and foreign senior civil servants and has been involved in drafting important manuscripts for the State Council of China on many occasions.

Franz-Josef Hammerl
Head of Crisis Management and Civil Defence, Federal Ministry of the Interior, Germany

In May 2014 Franz-Josef Hammerl took up his current post at the Federal Ministry of the Interior as head of the Directorate-General KM (Crisis Management and Civil Protection). Mr Hammerl was born on 13 January 1956; he is married with three children. After his military service (1974 – 1976) he studied law at the University of Cologne (1976 - 1982), where he passed his first state examination. His did his practical legal training at the Higher Regional Court of Cologne, followed by the second state examination in law (1982 – 1985). He started his career as a desk officer at the Federal Office for the Protection of the Constitution (1986 - 1987); afterwards he joined the Federal Ministry of the Interior, where he worked as desk officer in several functions (civil protection and disaster management, Task Force “German Unity”, interior policy issues, press office). In 1993 he was appointed head of division at the Federal Chancellery. In 1999 he took up work as Director at the Federal Academy of Public Administration. In 2002 Mr Hammerl returned to the Federal Ministry of the Interior to head the aviation security division and later on the division dealing with interior policy issues. In March 2008 Franz-Josef Hammerl was appointed Vice-President of the Federal Police Headquarters. In March 2009 he became head of the Directorate-General M (Migration; Integration; Refugees; European Harmonization); from March 2010 until May 2014 he led the Directorate-General B (Federal Police).

Jesper Holmer Lund
Chief of Field Coordination Support Service and Secretary of INSARAG, UN OCHA

Jesper Holmer Lund, Chief of OCHA Field Coordination Support Section (FCSS) in UN OCHA, has background as Emergency Management Officer in the Danish Emergency Management Agency, where he served ten years in the national service, as an instructor at the Officer Colleague and was further deployed on long term mission to Russia and Balkans as head of response teams deployed by the Danish government. He joined the United Nations Office for Coordination of Humanitarian Affairs, OCHA in 1999 and since then he has been working primarily in the field of emergency response. He has lead a number of OCHA UNDAC missions including 2003 earthquake Bam, Iran, 2004 Indian Ocean Tsunami, Aceh, Indonesia, the 2005 earthquake in Kashmir, Pakistan, the 2008 Hurricane Gonaive, Haiti, 2010 Porte au Prince, Haiti earthquake and 2013 Typhoon Hayian, Philippines to name some. In February 2012, Mr. Lund was deployed as acting head of the OCHA Office in Mogadishu, Somalia and later in 2012 re-assigned to become the acting Head of the OCHA Office for Syria, Damascus. After returning from Damascus earlier in 2013, Mr. Lund took up the responsibilities as Chief of the Surge Capacity Section and was in August 2014 appointed as Chief of the Field Coordination Support Section and Secretary of International Search and Rescue Advisory Group, INSARAG. Mr. Lund holds a Master in Disaster Management from the Lund and Copenhagen Universities and is a frequent lecturer at various academic disaster management training programmes.

Wade Hoxtell
Head of Operations at the Global Public Policy Institute (GPPi), Berlin, Germany

Wade Hoxtell is Head of Operations at the Global Public Policy Institute (GPPi) in Berlin. His research focuses on multi-stakeholder partnerships, corporate social responsibility as well as international and German development policy. His current projects include researching the role of the private sector in humanitarian response and disaster risk management activities; supporting the
German government with designing and implementing the post-2015 development agenda; and working with southern African think tanks to provide input into the post-2015 and Financing for development processes. He also supports the United Nations Global Compact with research on partnerships between the United Nations and the private sector.

Andy Kirkman  
*Deputy Director of Government Services,*  
*Met Office, UK*

Andy Kirkman is the Deputy Director for Government Services at the United Kingdom Met Office. Andy has worked in the Met Office for 25 years in areas ranging from satellite instrumentation to corporate performance management and government partnerships. As Deputy Director for Government Services he is responsible for managing the Met Office’s response to a wide range of UK Governments current and future requirements for meteorological services, advice, capability and research. Specific areas of focus for Andy are Defence, Space Weather, Data and Data services and developing partnerships with government and other UK and International organisations.

Ádám Kósa  
*Member of the European Parliament*

Ádám Kósa, Member of the Committee on Employment and Social Affairs and the Delegation for relations with Japan in the European Parliament, worked as a lawyer in the private sector beforehand. Since 2009 he is a Member of the European Parliament and a substitute of the Committee on Development and of the Delegation for relations with the countries of Southeast Asia and the Association of Southeast Asian Nations (ASEAN). He further is the President of the Hungarian Association for the Deaf and Hard of Hearing (Non-governmental organisation) since 2005.

Rihards Kozlovskis  
*Minister for the Interior, Latvia*

Rihards Kozlovskis was born in Latvia on 26 May, 1969. In 2003 he graduated from the Faculty of Law of the University of Latvia and received legal qualification. Prior to that in 1993 received Physical Education Teacher’s credentials from the Latvian Academy of Sport Education. Additionally, Rihards Kozlovskis received basic knowledge certificate for French language course organized by French Embassy (2004); certificate from the USA Customs Service for course on Anti-corruption and Integrity Awareness Seminar (2002), certificate from School of Public Administration of the Republic of Latvia on drafting of legal acts, project and personnel leadership, anti-manipulation technique and others (1998-2001); and certificate for the Service Protective Security Operations Course at MarANA Arizona, USA (1993).


Christian Kromberg  
*Deputy Mayor, City of Essen, Germany*

Christian Kromberg is Deputy Mayor for the city of Essen. He is responsible for the areas of human resource, organization, public security and fire brigade. In addition, he heads the crisis management in case of disaster. Professional responsibilities at the local administration prior to his election to Deputy Mayor were the management of the Law Office, Office of the Mayor and the function of the Personal Assistant of the Mayor. Kromberg studied Law at the Ruhr University Bochum. After passing his 1st State Examination in Law he was academic assistant at the Ostseeinstitute for Maritime Law and Environmental Law at the University of Rostock. Before joining the local administration of Essen, he passed his 2nd State Examination in Law.

Alan Kurešević  
*Vice-President Engineering, SES TechCom, Luxembourg*

Alan Kurešević received BSc degree in Computer Science, Telecommunication and Information Technology from the University of Zagreb, Croatia. After a short university carrier, in 1994 Alan joined Astra (today SES) and currently holds position of Vice President, Engineering at SES TechCom. He was leading a number of projects and technology developments that provided foundation for company’s new service developments. Since 2011 Alan is, among other things, leading SES activities in the development of the emergency.lu platform from the initial concept to the actual implementation. Today, together with other emergency.lu partners, he is looking at improving and expanding emergency.lu scope and services to civil
Awards in 2012 (the Oscars® of the Internet) for a web-

Swedish Civil Contingencies Agency (MSB) that was

Helena Lindberg
First Director General, Civil Contingencies Agency (MSB), Sweden

Helena Lindberg is the first Director General for the Swedish Civil Contingencies Agency (MSB) that was established in January 2009. She was previously the Director General for the Swedish Emergency Management Agency (SEMA) and the Swedish Rescue Services Agency (SRSA). Helena has a Master’s Degree in Law. She has worked as an Associate Judge of Appeals, and served as the Deputy Director at the Ministry of Justice and as the Director General for Legal and Administrative Affairs at the Ministry of Defence. Helena was born in France, in Neuilly-sur-Seine.

Didier Le Bret has been the Director of the Crisis Centre of the French Ministry of Foreign Affairs since January 2013. The Crisis Centre is a mechanism that coordinates interagency responses to crises. This specialized permanent team is capable of managing humanitarian crises and of mounting rapid responses to threats to the safety of French nationals. Previously the French Ambassador to the Republic of Haiti, Didier Le Bret has also completed postings overseas in Dakar, New York and Moscow with the French Ministry of Foreign Affairs. He has also served as Deputy Director of the Private Office of the Minister of State for Cooperation and Francophony.

Didier Le Bret
Director of the Crisis Centre, Ministry of External Affairs, France

Aminda Leigh has more than 25 years’ experience as a professional journalist, working for BBC radio and TV in the UK for over a decade. She moved to Italy in 2001 and now runs her own media services agency. She works as a reporter for radio, TV and online as well as a moderator, trainer and translator for Italian, European and international clients. Her specific areas of specialism include environmental issues and climate change, media, culture and European affairs. As a moderator, Aminda has chaired a wide variety of sessions during conferences, from plenary debates to high-level panels and speed pitching events. She has moderated at major EU showcases such as Green Week, organised by DG Environment and European Development Days as well as at a previous edition of the Civil Protection Forum. The range of subjects she has covered with her moderation work spans from risk perception to animal welfare, REACH chemical legislation, endocrine disrupters, climate change adaptation, water matters for cities and energy efficiency, to name but a few. Recognition for Aminda’s journalistic work includes an Honourable Mention at the 15th Webby Awards in 2012 (the Oscars® of the Internet) for a web-documentary on EU-US relations made for the European Commission. She is a published author.

Aminda Leigh
Journalist and Director, AMROS Media Solutions

Timothy Manning was confirmed by the U.S. Senate as the Deputy Administrator of FEMA for Protection and National Preparedness in 2009. Working with partners at all levels of government, the private sector, and community organizations across the country, and through the coordination of FEMA’s preparedness, prevention, and protection initiatives, Mr. Manning is responsible for the federal government’s efforts toward building whole community based resilience. Prior to joining FEMA, Mr. Manning served as the Secretary of the New Mexico Department of Homeland Security and Emergency Management and Homeland Security Advisor to former Governor Bill Richardson, where he directed the State’s efforts on border security, information and intelligence sharing, and disaster response. Tim is a former firefighter, EMT, mountain rescue specialist, and geologist; he has served in a variety of emergency management positions at the State and local levels and in non-governmental organizations, including Director of the New Mexico Office of Emergency Management and Deputy Secretary of the New Mexico Department of Public Safety for Emergency Services. He has served on regional and national policy boards and committees across the Homeland Security spectrum, and been actively involved in the training and education of homeland security professionals throughout his career. He brings two decades of diverse, frontline emergency management experience to FEMA. Deputy Administrator Manning earned a Bachelor of Science in Geology from Eastern Illinois University, a Master of Letters in the study of Terrorism and Political Violence from the University of St. Andrews, and is a graduate of the Center for Homeland Defense and Security Executive Leaders Program at the Naval Postgraduate School.

Timothy Manning
Deputy Administrator for Protection and National Preparedness, Federal Emergency Management Agency, USA

Fausto Marincioni is a senior scientist at the Università Politecnica delle Marche at Ancona, Italy, where he pursues research on disaster risk reduction and teaches graduate

Fausto Marincioni
Senior Scientist on Distaster Risk Reduction, Università Politecnica delle Marche et Ancona, Italy

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Helena Lindberg
First Director General, Civil Contingencies Agency (MSB), Sweden

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Helena Lindberg
First Director General, Civil Contingencies Agency (MSB), Sweden
and undergraduate courses in environmental sustainability and natural hazards. He holds a Ph.D. in Geography from the University of Massachusetts (USA). His professional experience with government agencies and international organizations (United Nations, US Department of the Interior, Italian Ministry of Foreign Affairs and Italian Civil Protection) involved the design and implementation of government projects aimed at optimizing the exchange of knowledge for disaster prevention, emergency planning and management. Previous to the Università Politecnica delle Marche, Marincioni has taught human and environmental geography at Long Island University, New York, and has worked at the United States Geological Survey, USGS Woods Hole Coastal and Marine Science Center, on information and knowledge-bank development.

Ed Martinez  
*President of the UPS Foundation, USA*

As President of The UPS Foundation, **Ed Martinez** is responsible for the operations and management of UPS' global philanthropic, employee engagement and corporate relations programs. Mr. Martinez joined UPS in 1976 and progressed through various management ranks within the company. In 2007, Martinez became Director of Philanthropy and Corporate Relations for The UPS Foundation. In addition to his corporate responsibilities, Martinez represents UPS on the World Economic Forum's Global Agenda Council on Humanitarian Response and serves as UPS Executive Liaison to the Council of Independent Colleges. He is also a member of the Corporate Advisory Board for The National Council of La Raza, corporate liaison to the Points of Light Institute's Service Council, Chair of the Corporate Development Council for the World Association of Girl Guides and Girl Scouts and a member of the Board of Directors of the International Association for Volunteer Effort. He is also Co-chair of the National Academy of Sciences "Resilient America" program. Born in Havana, Cuba, Martinez immigrated to the United States with his family in 1960. He holds a Bachelor of Arts degree in Accounting and a Juris Doctor degree. Martinez is a member of the American Bar Association, Florida Bar and Hispanic National Bar Association.

Geoff Meade  
*Journalist, Meade Davis Communications*

**Geoff Meade** is a journalist with over 35 years’ experience of covering EU affairs, and an experienced speaker and moderator of conferences and seminars on EU issues. He is the former Europe Editor of the Press Association, the UK and Ireland’s national news agency, and still regularly broadcasts on radio and television. As well as reporting on every aspect of the EU's activities for the past 35 years for the Press Association, he is also a well-known columnist who has featured in *The Bulletin*, *European Voice*, *E!Sharp* and Together magazine, and published his first book, “All in a Day’s Shirk”, in 2009.

Patrick Meier  
*Co-founder of the Digital Humanitarian Network, CrisisMappers and the Humanitarian UAV Network*

**Patrick Meier** is an internationally recognized thought leader on humanitarian technology and innovation. His new book, “Digital Humanitarians” has already been endorsed by Harvard, MIT, Stanford, Oxford, UN, ICRC, IFRC, World Bank, USAID, DfID, LinkedIn, Twitter and others. In 2010, he was publicly recognized by President Clinton for his pioneering digital humanitarian efforts, which he continues to this day. Patrick presently directs QCRI’s Social Innovation Program where he develops Next Generation Humanitarian Technologies in partnership with leading humanitarian organizations. He has previously consulted for the UN, OSCE, OECD, EC, World Bank and other international organizations. Patrick founded the Humanitarian UAV Network and co-founded the Digital Humanitarian Network with the UN. He is also an internationally sought-out speaker, having given over 200 talks in more than 20 countries across 6 continents. He has spoken at the White House, UN, Google, Twitter, Harvard, Stanford, MIT, Skoll World Forum, Club de Madrid, Mobile World Congress, PopTech, TTI/Vanguard, SXSW and several TEDx's. Patrick’s work has also been featured in the New York Times, Washington Post, Wall Street Journal, CNN, BBC News, UK Guardian, The Economist, Forbes & Times Magazines, Le Monde, France 24, Wired, Mashable, Nature, New Scientist and elsewhere. His influential and widely read blog iRevolutions has received over 1.5 million hits. Patrick has a PhD from The Fletcher School of Law and Diplomacy, a Pre-Doctoral Fellowship from Stanford University and an MA from Columbia University.

Lorenz Meyer-Minnemann  
*Section Head for Civil Preparedness, Operations Division, NATO*

**Lorenz Meyer-Minnemann** is the Head of Civil Preparedness in the Operations Division of the NATO International Staff. He took up this post in early 2015. From 2010-2014, he served as Officer for NATO and Multilateral Affairs in the Political Affairs and Security Policy Division. In this position he was responsible primarily for NATO Summit meetings and the Alliance’s relations with the United Nations, as well as political consultations with the United States, Germany and a range of other Allies. From January to September 2013, Lorenz was seconded to the Private Office of NATO Secretary General Anders Fogh Rasmussen,
where he worked as Policy Adviser in the Policy Planning Unit. From 2004 to 2010 he served as Desk Officer for the Caucasus and Central Asia within the Political Affairs and Security Policy Division. From 2001-2004, Lorenz was General Policy Officer for civil emergency planning in the Operations Division of NATO’s International Staff, having previously worked as a consultant for the NATO Disaster Response Coordination Centre. Originally from Hamburg, Germany, Lorenz joined the NATO International Staff in 2000 after completing studies in History and War Studies at King’s College, London. He speaks English, French, and German.

Merle Missoweit
Senior Researcher at Fraunhofer Institute for Technological Trend Analysis, Scientific Coordinator of DRIVER (EU FP7 co-financed project), Germany

Merle Missoweit, is a senior researcher at Fraunhofer Institute for Technological Trend Analysis (INT) where she leads the unit for International R&T Management. She has a background in biology and physics. In her current work she has been focusing on crisis management research & innovation planning, being the coordinator and scientific coordinator, respectively, of the FP7 Demonstration Phase I and II projects ACRIMAS (Aftermath Crisis Management System-of-systems) and DRIVER (Driving Innovation in European crisis management and Resilience). She is engaged in several other FP7 security research projects and activities including the SOURCE Centre of Excellence on Societal Security as well as several advisory roles. Merle is also an advisor to the EU Commission, currently as member of the Security Advisory Group, of the H2020 Advisory Group on Gender and as vice chair of the H2020 Advisory Group on International Cooperation. Further, on the defence side, she has been active in R&T planning support for the armament branch of the German Federal Ministry of Defence with a focus on international R&T cooperation, including the support of the German MoD’s participation in the development and implementation process of several EDA initiatives (EDRT Strategy, Capability Development Plan etc.).

Dr. Ian Norton

Dr. Ian Norton, an Emergency Physician with post graduate qualifications in International Health and Tropical Medicine Ian, currently works for the World Health Organisation HQ in Geneva heading the new Foreign Medical Team Unit. Previously the Director of disaster preparedness and response at the National Critical Care and Trauma Response Centre, Darwin, Australia, he has led the development of the Australian Medical Assistance Team (AUSMAT) initiative, including an innovative training programme for deployment of medical teams to disaster, and a fully self-sufficient capability for international field hospital deployment for the Australian Government. He has led the Australian Government medical team field deployments to the Pakistan floods, Solomon Islands

Scira Menoni
Associate Professor at the Department of Architecture and Urban Studies, Politecnico di Milano, Italy

Scira Menoni works presently as associate professor at the Politecnico di Milano where she teaches various courses at the international program Civil Engineering for Risk Mitigation. She also teaches at the CERG-C Specialisation certificate for the assessment and management of geological and climate related risk at the Geneva University, Switzerland. She has been involved and has coordinated EU funded research in the field of natural hazards, such as FP 6 Scenario (Support on Common European Strategy for sustainable natural and induced technological hazards mitigation), FP 7 Ensure (Enhancing resilience of communitities and territories facing natural and na-tech hazards) projects; currently she is coordinating a Coordination Action, Know-4-drr (Enabling knowledge for disaster risk reduction in integration to climate change adaptation) and since January the IDEA (Improving Damage assessments to Enhance cost-benefit Analyses) project funded by DG-ECHO. Through university/ public administration agreements she has and still is consulting governmental agencies on risk mitigation and management related issues.

Carlos Moedas
European Commissioner for Research, Science and Innovation

Carlos Moedas was born in Beja (Portugal) in 1970. He graduated in Civil Engineering from the Higher Technical Institute (IST) in 1993 and completed the final year of studies at the École Nationale des Ponts et Chaussées in Paris (France). He worked in engineering for the Suez-Lyonnaise des Eaux group in France until 1998. He obtained an MBA from Harvard Business School (USA) in 2000, after which he returned to Europe to work in mergers and acquisitions at the investment bank Goldman Sachs in London (UK). He returned to Portugal in 2004 as Managing Director of Aguirre Newman and member of the Executive Board of Aguirre Newman in Spain. In 2008, he founded his own investment company, Crimson Investment management. In 2011, he was elected for the National Parliament and was called for the government to the function of Secretary of State to the Prime Minister of Portugal in charge of the Portuguese Adjustment Programme. In 2014, he became Member of the European Commission, as Commissioner in charge of Research, Science and Innovation.
Dengue outbreak and Typhoon Haiyan in the Philippines including deployment of a 50 bedded surgical field hospital and tertiary referral trauma centre for Tacloban city within days of the storm. He is the lead author of the new WHO global classification and standards for Foreign Medical Team (FMT) deployment to sudden onset disasters. For the WHO he leads the development of a global registry of FMTs and their quality assurance and coordination. He was deployed for over 5 months to the West African Ebola outbreak 2014/15 and led the coordination of over 60 FMTs in three countries and the design and build of a thousand Ebola treatment centre beds in Monrovia.

Nuno Nunes
Global Camp Coordination and Camp Management Cluster Coordinator, International Organization for Migration

Nuno Nunes is the Global Camp Coordination and Camp Management (CCCM) Cluster Coordinator at the International Organization for Migration (IOM). Nuno has twelve years of in depth experience in the humanitarian field in matters such as camp management, emergency operation coordination, information management, and engagement with senior government officials and the private sector. He has been highly involved in the design and implementation of the Displacement Tracking Matrix (DTM), which is an information management tool developed by IOM that gathers data on the needs and movements of displaced populations, as well as service gaps in displacement sites. Nuno has worked in emergency operations in 12 countries, including DRC, Haiti, Mali, Pakistan, Philippines, Syria, and South Sudan. Nuno also manages information management development teams at the global level, and he has overseen the deployment of DTM technology to 18 countries. He holds a Masters in Agricultural Engineering and has a technical background in GIS and database management.

Fuat Oktay
President af Prime Ministry Disaster & Emergency Management Authority (AFAD), Turkey

Fuat Oktay, President of Turkish Prime Ministry Disaster and Emergency Management Authority (AFAD), was born in 1964 in Yozgat-Çekerek. He completed his bachelor’s degree in business management in Turkey, and received his MBA and PhD in the United States of America. In addition to his MBA degree, he completed a master’s program on Manufacturing Engineering, and a PhD program on Industrial Engineering. He became an expert on aviation and automotive industries. Throughout his stay at the US, he worked in the automotive industry, with companies such as Ford, General Motors and Chrysler. In these companies, he worked on product development and lean production projects. He lectured in universities in the US and in Turkey. He provided consultancy services to many public and private sector companies. Moreover, he provided consultancy services to small and medium sized enterprises, including KOSGEB. In some of these companies, he served in the capacity of Director General, Deputy Chairman and Board Member. During the economic crisis hitting Turkey in early 2000s, he specialized in enterprise-based crisis management, and worked as Vice-Dean and Head of the Business Management Department at Beykent University. Also working in the field of Aviation and Maintenance & Repair, Dr. Fuat OKTAY served as Deputy Director General responsible for Strategic Planning and Business Development, Sales and Marketing, Production Planning and Information Technologies, at THY Technic. In the last three years, he has brought to life 5 different joint venture projects at THY THY Technic in the fields of maintenance & repair, design and manufacturing.

Jadran Perinić
Director General of the National Protection and Rescue Directorate, Croatia

Jadran Perinić was born in Zadar, Croatia on 22 April 1959. Upon receiving his Master’s Degree in social sciences, in the field of field information studies, branch communication studies, he pursued the same field and branch of studies to fulfill all doctoral dissertation requirements in 2008 and the Zagreb School of Humanities and Social Sciences awarded him a PhD in 2010 for the dissertation entitled “Public Opinion as a Subjective Feature of a Crisis Situation – The Impact of Media and Public Relations Services on Public Opinion”. He has been employed in the Professional Fighting Unit of the City of Zadar since 1981 where his tasks also included commanding of a fire station. Without interruptions in this position he spent two years as a part-time associate at the Department of Mass Communication of the University of Dubrovnik (academic years of 2008/2009 and 2009/2010) lecturing in Business Communication within the Public Relations Undergraduate Program. Since 2012 he has been the Director General of the National Protection and Rescue Directorate responsible for the preparation and coordination of all activities related to disaster management. He speaks English and German. He has been registered as scientist with the Ministry of Science, Education and Sports under number 293801. He is the author of a book on business communication (Perinić, J.: Business Communication Paradigm – Theoretical Aspects, Situations and Perspectives, Sveučilišna knjižara d.o.o., Zagreb, 2008).

James Powell
U-Report Global Strategist & Coordinator, Global Innovation Centre, UNICEF

James Powell is responsible for U-Report global strategy and coordination. U-Report is a text message based social
monitoring program that allows people in developing countries to report issues in their community and receive lifesaving information. James works with innovation leaders across UNICEF’s network to support the scale up of innovation projects in new and existing countries throughout the entire project life cycle. Prior to this James led the original U-Report project in Uganda where the program was used to fight Ebola and Cholera outbreaks, provide field support and target the delivery of health services. Since then lessons learned have been applied in Liberia, Nigeria and Sierra Leone in the 2014 and 2015 Ebola response. Aside from working at UNICEF James has over 15 years’ experience working in digital media and communications planning, more recently advising private digital companies on commercial business strategy and product development, and formerly as a Managing Director & Managing Partner at one of the world’s biggest media agencies. James has previously run an import business to support NGOs in East Africa with technology supplies and has taught English in the Ugandan Primary Education system. He has a Masters in Environment & Development from Kings College London.

Laurent Prevost
Director-General for Civil Protection and Crisis Management, France

Laurent Prevost is the Director-General for Civil Protection and Crisis Management since 2014. After finishing his studies at the National School of Administration in France, he worked as Director of the cabinet of the prefect of VAR, as Director of the cabinet of the prefect of Oise and in the General Secretary of the prefecture of Lozere. After working as a civil administrator of 1st class, he became Head of the office of the organization and management of prefectures (DATAP) in 1998, Sub director of the territorial administration (DMAT) in 2005, deputy director and finally director of the cabinet of the Secretary of State in charge of overseas. Since 2009 he worked as Prefect, first of Haute-Marne, later of the Region Martinique.

Leon Prop
Director of the Red Cross EU Office, International Federation of Red Cross and Red Crescent Societies

Leon Prop has been director of the Red Cross EU Office in Brussels since September 2011. In this role he oversees external relations and advocacy with EU institutions in the areas of humanitarian aid, development cooperation, migration & asylum, and social inclusion. Prior to this he worked as IFRC head of operations for Europe and Central Asia, and as head of regional office in the Pacific, and in Central America & the Caribbean. Leon started his Red Cross career in 1994, working initially as project officer for the Middle East, and then as a delegate for development programmes in Laos and Guatemala. Leon has degrees in physics and chemistry, and has worked as a science teacher in Uganda and the Netherlands.

Jack Radisch
Project Manager, High Level Risk Forum, OECD

Jack Radisch is project manager of the OECD High Level Risk Forum, which brings together government officials and representatives from industry to identify best practices in the management of complex risks. As an international civil servant he guides countries in building consensus around public management strategies and especially governance approaches to risk assessment. He has published numerous articles and OECD peer reviews on risk management policies, was co-author of the G20/ OECD Framework on Disaster Risk Assessment and Risk Financing, and was main author of the OECD publication “Future Global Shocks”. He has worked as a public policy analyst in various fields related to the economics of security, including cyber threats, bio-security and nuclear non-proliferation. Mr. Radisch is a licensed attorney and continues to provide pro bono legal advice to indigent clients and non-profit groups.

Kalliopi N. Saini
National Representative of Greece in European Union for Civil Protection

Kalliopi N. Saini is Colonel of the Hellenic Fire Corps and currently serving as the National Representative of Greece in European Union for Civil Protection. Kelly N Saini holds a Ph.D. in Aeronautics and a Diploma in Mechanical Engineering. Her thesis paper was included in the NASA Technical Report “Aeronautical Engineering” and is author of several papers in peer-reviewed journals and conferences. She served as a Professor in the Hellenic Air Force Academy and an Associated Professor in the University of Patras. She was the first woman in the history of the Hellenic Fire Corps and remains the highest in rank. During her career as a Fire Corps Officer, she served in different positions among them as a Station Officer, as a Senior Officer in the Athens 2014 Olympic Games Security Division and participated in major disaster’s operations highlighting the Earthquake in Turkey (1999), the Earthquake in Athens (1999), the Major Forest Fires in Athens (1998, 2000) and the Major Forest Fires in South Greece (2007). She has been awarded a number of medals and distinctions for her work in Greece and International highlighting the Highest Honourable Distinction for “distinguished acts for the public interest” (Ministerial Degree) by the Minister of Citizen Protection in 2012 and the Gold Cross Medal of the Battalion of the Phoenix in 2007 by H.E. the President of the Hellenic Republic.
Jakob Schmidt
Senior Vice President for Emergency Africa and Middle East, Falck, Denmark

Jakob Schmidt, Senior Vice President for Emergency Africa and Middle East, at Falck started to work as a Research Assistant at the Institute of Finance, CBS. He further was employed at Carnegie Bank, Corporate Finance and as a CFO and later CEO at Pharmexa. Since 2010 he works with Falck, first as Vice President for Investor Relations and Business Concept Development and then as Vice President for Emergency Europe & Asia, Mergers & Acquisitions.

Monica Scatasta
Head of Water & Waste Management Division, Projects Directorate, European Investment Bank

A specialist with 20 years of experience in policy advisory and project financing in water resources management and service provision, flood risk management and climate change adaptation, Monica Scatasta is currently the Head of the Water and Waste Management Division of the European Investment Bank, which she joined in 2003. In 2007-09 she was seconded to the OECD Water Programme, which produced flagship reports on water pricing and financing and private sector participation in the water sector. Prior to joining the EIB (1993-2003), she was a water resources expert at the World Bank and an economic modeller at the International Food Policy Research Institute (IFPRI), both in Washington, D.C. During this period (1999-2000), she integrated the expert team that supported Brazil’s Ministry of Environment and National Water Agency in the creation of the pioneering Paraíba do Sul river basin management system, focusing on the introduction of water rights and water charges. Mrs Scatasta has presented extensively at international water and climate-related events and coordinated the work on water pricing and sustainable cost recovery at the 5th and 6th World Water Forums (Istanbul, 2009; Marseille, 2012). She holds advanced degrees in finance, economics and environmental engineering from the University of Bologna, the Johns Hopkins University School of Advanced International Studies and the Johns Hopkins University Department of Environmental Engineering.

Laura Shields
Brussels Director, Media Coach International

Laura Shields is Brussels Director for The Media Coach. She began her journalism career in 2002 as a producer for live European business news programmes at CNN and CNBC. In 2004 Laura moved to BBC News where she worked as a producer for Radio 4’s World at One and PM programmes and also on all the major TV Election Specials. Laura set up the Brussels office of The Media Coach in 2008 while also freelancing for Reuters and the BBC in Brussels. Her media clients include UN agencies, Fortune 500 companies, NGOs, foundations, diplomats and think tanks. As a moderator she has chaired events for all sorts of organisations including the UN, the European Commission and Parliament, as well as businesses and NGOs.

Anya Sitaram
Founding Director and Executive Producer, Rockhopper TV

Anya Sitaram is a founding director and executive producer of Rockhopper TV, a UK based Production Company that specialises in documentaries on development, environment and global health. For many years she was a familiar face on British television both as a reporter and newsreader. Anya is now a professional conference moderator and regularly chairs high-level panels for the European Commission and other organisations. Among the television series Anya has overseen are The Health Show – a 26 part series on global health for BBC World, Hot Cities on cities adapting to climate change and Survival, a landmark series of hour-long documentaries looking at how local communities are responding to the world’s major diseases. Anya began her journalistic career as a BBC trainee in 1983 before moving to ITN where she became a reporter and Health and Science correspondent. Later she joined the BBC’s flagship science programme Tomorrow’s World. Anya has also anchored news bulletins for Sky News and BBC World News.

Claus H. Sørensen
Director General for Humanitarian Aid and Civil Protection, European Commission

Claus Haugaard Sørensen is the current Director General of ECHO (European Commission Directorate General for Humanitarian Aid and Civil Protection). Mr Sørensen spent the first half of his career in the Danish Foreign Affairs Ministry. He was in charge of economic (trade and finance) questions and also had the opportunity to represent the interests of Denmark at the OECD, as the First Secretary of the Danish Delegation. Between 1988 and 1989 he joined the Danish Permanent Representation in Brussels as a counsellor. The following year he joined the European Commission as a member of Henning Christophersen’s cabinet and from 1995 to 1999, he was a member of Anita Gradin’s Cabinet. In those functions he dealt mainly with the enlargement, macrofinancial assistance, the fight against crime, internal market and social and labour market issues. Between 1999 and 2011, Mr Sørensen was appointed to different management positions within the European Commission most notably Director for International Environmental issues, Head of Cabinet for Agriculture (Fischer Boel) and Development (Nielsen). He was holding...
the post as Director General of DG Communication from 2006 to 2011, after which he joined DG ECHO.

**Peter Spruyt**  
*Scientific/ Technical Project Officer on Global security and crisis management, Joint Research Centre, European Commission*

Peter Spruyt studied land surveying and Photogrammetry in Gent (B) and worked in the geomatics field for his entire carrier so far. He started working for the Flemish Land-society in 1987 as a photogrammetrist. In 1997 he joined the European Commission and works for DG JRC since then. First as a scientific officer in the MARS (Monitoring Agriculture by Remote Sensing) unit, later he joined the Global Security and Crisis Management unit. He works currently for the GEMMA action supporting the EC in implementing the Copernicus initial operations in the Emergency Management Service (GIO EMS) and is involved in the operational use of UAS Mapping devices to be integrated in the EMS and to support PDNA efforts.

**Christos Stylianides**  
*European Commissioner for Humanitarian Aid and Crisis Management*

Christos Stylianides is the European Commissioner for Humanitarian Aid and Crisis Management since 1 November, 2014. On 24 October 2014 he was appointed the EU Ebola Coordinator by the European Council. He was elected Member of the European Parliament in the May 2014 European elections where he served until 31 October 2014. He was twice appointed Government Spokesperson of the Republic of Cyprus (in 1998-1999 and in 2013-2014). He was responsible for the management of the Government’s communication strategy and was the head of the Government’s centralised Press and Information Office. During the period 2006-2013 he served as a Member of the Cyprus House of Representatives (elected in 2006 and 2011). During his tenure he served as Vice-Chair of the Committee on Foreign and European Affairs (2011-2013) and member of the Committee on European Affairs, the Committee of Internal Affairs and the Committee of Employment and Social Affairs (2006-2011). During 2006-2011 he was a member of the OSCE Parliamentary Assembly and he was elected Member of its Bureau in 2012.

**Kenichiro Tachi**  
*Director for International Coordination of River Engineering of the Water and Disaster Management Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan*

Kenichiro Tachi, Director for International Coordination of River Engineering, River Planning Division, Water and Disaster Management Bureau Ministry of Land, Infrastructure, Transport, and Tourism (MLIT), Japan. As Director for International Coordination of River Engineering of the Water and Disaster Management Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Mr. Kenichiro Tachi is responsible for international affairs on water and river management including water-related disaster risk reduction. He is also responsible for technical assistance to foreign countries. Mr. Kenichiro Tachi joined the Ministry of Construction (former MLIT) in 1998 after taking the Master Degree of Civil Engineering in Tokyo Institute of Technology. He has dedicated himself to water and river management for more than fifteen years, by utilizing knowledge and experience in the field of civil engineering. During his career, he has been engaged in researching, planning, designing, implementing river management works. During 2011-2013, Mr. Kenichiro Tachi was responsible for integrated river basin management of a class-A river, Hi River Basin in Japan, as the head of MLIT’s river work office.

**Keiko Tamura**  
*Professor at the Risk Management Office, Niigata University, Japan*

Keiko Tamura is Professor, Risk Management Office, Niigata University, Japan. One of her major interests is the participatory approach for constructing Disaster Management Plans improving civic involvement in reducing risks. Disaster management is a continuous and integrated multi-sectional, multi-disciplinary process of planning and implementation of measures aimed at realizing sustainable and resilient community. She promoted the projects consist of series of workshops in Japan and abroad using the holistic method to how to promote a common understanding about potential risks, how to cope with stakeholders and how to provide a venue for effective discussion and decision making among them.

**Maria Telhado**  
*Head of Division, Department of Civil Protection, Municipality of Lisbon*

Maria Telhado is the Head of the Prevention Division in the Civil Protection Department of Lisbon City Council, since 2011 and she has more than 20 years’ experience in civil protection. Maria holds a degree in geography and regional planning (FCSH/UN, 1989) and a master’s degree in GIS (IST/DEC, 1997). Maria has specialised and experience in GIS (ArcGIS), cartography, emergency planning, risk/hazard/vulnerabilities analysis/assessment and early warning system for meteorological risk. Maria is also the author of methodology used for municipality forest fires risk (2009), meteorological risk (2011), flood vulnerability (2009) and the GIS hydrologic model (2006). She is also...
responsible for the risk analysis contents included at the Lisbon (GIS platform) Municipal Master Plan (2009-2012). In the Department, Maria coordinated the process of implementation of the GIS and the integration of orto images (2006-2013), participated at I&D projects sponsored by the Portuguese Foundation for Science and Technology (2010-2012) and collaborated as advisor/partner in the different EU projects: CRISYS, POP-ALERT, USCORE-CARD, RESILIENS, FLOODS (2011-2015). She also participated in the pilot demonstrations (defining different cascading scenarios associated to an earthquake and to extreme meteorological situations) in 11th PPRD South prevention and preparedness workshop on “Multi-hazard risk assessment in urban environment”, 17-19 October 2012, on EU Exchange of Experts and on NERA seismology@school. Maria has participated in and oriented numerous academic and curricular training events and presented several works and papers in congresses and seminars as outlined in relevant publications.

Rusudan Tevzadze
Expert of National Curricula Department, Ministry of Education and Science, Georgia

Rusudan Tevzadze is an author of scientific works and publications. She is a participant of international scientific forums, conferences and symposiums. In 1996 Rusudan Tevzadze graduated from the Ivane Javakhishvili Tbilisi State University, the faculty of Social-Economic Geography. She holds a Master’s Degree and a postgraduate diploma in political geography. In 2002-2008 Ms. Tevzadze worked as a lecturer in the Tbilisi State University. In 2007-2012 she worked at the Institute of Geography as a scientist. Since 2002 she has been working as a teacher (civil education and geography) in the state and private schools. Since 2010 she is a civil education trainer-expert in the Fund of Konrad Adenauer in Georgia, Expert of National Curricula Department of the Ministry of Education and Science. In 2013 she earned her Ph.D. in economics - business administration and management.

Kenneth Thomas
Head of Network Operations Management Coordination, EUROCONTROL

Kenneth Thomas is currently the Head of the Network Operations Management Coordination Unit at EUROCONTROL’s Network Manager Directorate. He joined EUROCONTROL in 2000 as Air Traffic Flow Management (ATFM) Training Manager. Nowadays he is involved in the integration of NM projects into operations. He deals with crisis disruption and risk management processes, operations safety management processes, NM system acceptance testing as well as the Network Operations Portal service. Before joining EUROCONTROL, he was an Air Traffic Controller in Sweden, then in Switzerland, and went back to Sweden to be the Deputy Head of Stockholm Area Control Centre.

Rick Thomson
Independent Consultant, T-Media

Rick Thompson worked for BBC News for 27 years, first as a reporter, presenter and producer, then holding senior positions at the regional, national, and international levels. He was in charge of global news coverage for BBC World Service Radio and Television, and helped to launch the 24-hour TV channel “BBC World”. For four years he was the BBC Television Foreign News Editor, organising coverage of world events, and as Editor of the BBC evening news, he reported the Chernobyl disaster, the Ethiopian famine and other global threats to security. Now Rick works as an independent consultant, running his own business, “T-Media”, which specialises in the development of high-quality broadcasting in Europe. Rick is a regular conference moderator and speaker on European media issues. He was a moderator at the Civil Protection Forum in 2009, and has chaired sessions at many EU conferences, including Green Week (11 times), Mobility Week, Europe Direct, Regions and Cities, Dev Days, Interreg, Maritime Biodiversity and REACH. Rick is the Visiting Professor of Broadcast Journalism at Birmingham City University.

Frans Timmermans
First Vice-President of the European Commission, Better Regulation, Interinstitutional Relations, the Rule of Law and the Charter of Fundamental Rights

Frans Timmermans is the First Vice-President of the European Commission, responsible for Better Regulation, Inter-Institutional Relations, the Rule of Law and the Charter of Fundamental Rights. A Member of the Dutch Parliament from 1998, he was the Netherlands’ Minister of Foreign Affairs between 2012 and 2014 and Secretary of State for Foreign and European Affairs between 2007 and 2010. He started his career in the Dutch Foreign Ministry, and before joining Parliament worked as adviser to Max van der Stoel, the High Commissioner on National Minorities for the OSCE. He holds degrees in French literature, European law and history.

Colonel Philip Tosello
Director, New Technologies and Risk Control Centre (PONT), France

Lieutenant-Colonel Philip Tosello, officer of professional firefighters, is the director of the school of application of civil security (ECASC) in Valabre, France. This civil security
school is responsible for training firefighters, officers in the specialties of civil security, forest fires, water rescue, scuba diving, rescue in dangerous environments, clearing rescue, mountain rescue, and technological risk. From 2002 to early 2015 he was director of the new department of technologies, specializing in geographic information systems and the creation of management tools and decision support. Before he was head of group operations in the county fire and rescue service “Eure et Loir”, director of the departmental prevention office and an officer in the main rescue center of Hyères. At the operational level he has more than ten years of experience and participated in aerial assessments of forest fires and floods. Previously he served as an incident commander on major operations. He holds a university degree in security technologies from the University of Marseille.

Andrew Velasquez III

Andrew Velasquez was appointed FEMA Regional Administrator by President Obama on April 16, 2010. In this role, he coordinates preparedness, response, recovery, and mitigation activities for the states of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. At FEMA, Mr. Velasquez has played a key role in support of the NATO Civil Emergency Planning Committee events. As a keynote speaker for the NATO 2012 HVE seminar, Velasquez presented an overview of U.S. planning efforts in support of NATO’s 2012 Chicago summit. In 2014, Mr. Velasquez provided the keynote address to the NATO Civil Protection Group seminar on Catastrophic Planning, which highlighted FEMA Region V’s catastrophic earthquake and nuclear incident planning efforts. Prior to his FEMA appointment, Mr. Velasquez served as Director of the Illinois Emergency Management Agency and Homeland Security Advisor to the Governor, responsible for directing the state’s disaster response, homeland security and nuclear safety programs. Before entering state service, Mr. Velasquez was Executive Director of Chicago’s Office of Emergency Management and Communications (OEMC) where he led the City’s 911 dispatch operations, emergency management and homeland security programs. Previous to his appointment with OEMC, Mr. Velasquez served the Chicago Police Department for 10 years. He was also a member of the U.S. Army Reserve for 6 years. Mr. Velasquez holds both a BA and MS degree in criminal justice from Illinois State University. He received a MBA from St. Xavier University and also completed the Naval Post Graduate School’s Executive Leadership program in both Homeland Defense and Radiological Emergency Preparedness.

Margareta Wahlström
Special Representative of the UN Secretary-General for Disaster Risk Reduction and Head of UNISDR

In November 2008, the United Nations Secretary-General Ban Ki-moon announced the appointment of Margareta Wahlström as his first Special Representative of the Secretary-General for Disaster Risk Reduction. Ms Wahlström has extensive experience in both disaster relief operations and disaster risk management, with the United Nations system and the International Federation of Red Cross and Red Crescent Societies. Her broad experience spans conflict and non-conflict emergencies, and addressing long-term issues of sustainable development. Ms Wahlström is also the head of UNISDR, the United Nations Office for Disaster Risk Reduction, which is the focal point in the United Nations system for the coordination of disaster reduction. Under the SRSG’s leadership, UNISDR is in charge of supporting the implementation of the Sendai Framework for Disaster Risk Reduction throughout the world.

Graham Willmott
Head of Unit for Research Activities on Security, DG Migration and Home Affairs, European Commission

Graham Willmott, Head of Unit Innovation and Industry for Security in the European Commission, DG Home, holds a degree in Physics and worked as an engineer in various U.K. nuclear power stations; Since 1995 he works in the European Commission, first being responsible for the development of assistance programmes to nuclear regulatory authorities in Central and Eastern Europe within DG Environment, later as Member of the REACH team in DG Environmen and finally as Deputy Head and Head of REACH Unit, DG Enterprise. He was Head of Unit for Policy and Research in Security from 2013 to 2014 in DG Enterprise in the European Commission.
Exhibitions

Indoor exhibition

The exhibition reflects the central themes of the Forum: “Partnership and Innovation”. Its focus is on opportunities for partnership and cooperation between the civil protection community of users and the research and development communities.

Exhibitors show innovative projects, services and products relevant to the disaster management field including the results of EU-funded projects and covering topics such as: situational awareness, early warning systems (volcano’s, floods, mass notifications), forest fire prevention, satellite based software and practical applications, operational solutions for disaster management operations (forest fires, sheltering, communications, assessment and coordination).

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**Crisis & Emergency Management Centre (CEMAC), Belgium**

Technology demonstrator for multi-hazard, multi-national, multi-user Common Operational Picture & Situational Awareness management tool.

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**INTERMEDIX, USA**

Situational awareness for emergency management.

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**Daily Impact Emergency Management – Expert Network and Primary Research Group (DIEM), the Netherlands**

DIEM seeks to increase the impact of the results of EU funded projects and brings (End) Users together to conduct workshops that produce (pre)standardization products.

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**Istituto Superiore Mario Boella, Italy**

FLOODIS is a novel Copernicus downstream service that exploits existing space assets together with mobile sensing and state-of-the-art cloud systems in order to provide a faster, more flexible and scalable flood emergency response system (project financially supported by the EU-FP7 research programme).
<table>
<thead>
<tr>
<th>Stand number</th>
<th>Company/Department</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,2</td>
<td>Università di Roma ‘La Sapienza, Italy</td>
<td>PREFER project for Forest Fire Prevention via satellite based products such as vulnerability and risk maps, damage severity maps and 3D damage maps (project financially supported by the EU-FP7 research programme)</td>
</tr>
<tr>
<td>4</td>
<td>BCB International LTD, the United Kingdom</td>
<td>Remotely piloted air systems which can be used to search and rescue operations, border surveillance, hazmat monitoring, maritime surveillance and pollution sampling</td>
</tr>
<tr>
<td>5</td>
<td>Humanitarian Design Bureau SAS – Paris, France</td>
<td>Industrial design agency which creates products and services intended to support all stakeholders involved in emergency humanitarian aid and international development: from NGOs through their suppliers and the bodies which fund them, to international organisations, governments or the end users themselves.</td>
</tr>
<tr>
<td>6</td>
<td>School of Earth Sciences, University of Bristol, UK and Institute of Earth Sciences Jaume Almera (CSIC), Barcelona, Spain</td>
<td>VUELCO/VeTOOLS is a project looking into the characterisation of volcanic unrest and identification of eruption precursors and the development of e-tools for volcanic hazard assessment and risk management (project financially supported by the EU-FP7 research programme)</td>
</tr>
<tr>
<td>7</td>
<td>General Secretariat for Civil Protection, Ministry of Interior and Administrative Reconstruction, Greece</td>
<td>EU PROMETHEUS 2014 &amp; EU EVITA: use of social media in large-scale civil protection exercises (project financially supported by the EU Civil Protection Mechanism)</td>
</tr>
<tr>
<td>8</td>
<td>Johanniter-Unfall-Hilfe e.V. and National Headquarters in Cooperation with AnsuR Technologies AS</td>
<td>The ASIGN solution is the result of the highly successful FP7 project GEO-PICTURES which has already been successfully used during EU/UN missions (project financially supported by the EU-FP7 research programme)</td>
</tr>
<tr>
<td>9</td>
<td>National Commissioner of the Icelandic Police Department of Civil Protection and Emergency Management</td>
<td>FUTUREVOLC, the European volcanological supersite in Iceland, is a 26 partner project integrating space and ground based observations for improved monitoring and evaluation of volcanic hazards (project financially supported by the EU-FP7 research programme)</td>
</tr>
<tr>
<td>10</td>
<td>Delair–Tech – JRC, Toulouse, France</td>
<td>Pilot phase project on integrating Unmanned Aerial Systems derived imagery in the post-disaster map production, in addition to satellite data, in the Copernicus Emergency Management Service.</td>
</tr>
</tbody>
</table>
Prime Ministry Disaster and Emergency Management Authority, Republic of Turkey
Illustration of integrated Disaster Hazard maps, disaster preparedness and technological transformation in disaster management

International Humanitarian Partnership (IHP)
8 European governmental agencies provide assistance and technical support during emergencies in a strong partnership agreement

Department of Civil Protection of Italy
MEDSUV project on volcanic risk management (project financially supported by the EU-FP7 research programme) and illustration of innovative approaches in bringing together activities of the EU Civil Protection Mechanism with other EU financed projects and real life operations

Italian National research council
LAMPRE- landslide mapping and modelling software, vulnerability assessment, preparedness and recovery management (project financially supported by the EU-FP7 research programme)

Federal Office of Civil Protection and Disaster Assistance (BBK) and Federal Agency for Technical Relief (THW), Germany
Prevention and preparedness training, rising children’s awareness for preparedness, Federal Modular Warning System of the population, European Network for Psychosocial Crisis Management, implementation of EU human rights-related assistance programmes for disabled survivors of disasters

EXUS S.A., the United Kingdom
Service delivery platform, based on real-time data-centric technologies and applications to address the needs of the safety of citizens during complex evacuation processes and to increase cross-border coordination and the potential for interoperability

German Space Agency (DLR)
PHAROS is a project on a Multi-Hazard Open Service Platform for Satellite Based Downstream Services (project financially supported by the EU-FP7 research programme)

AIRBUS Group Innovation, France
Demonstration of Unmanned Aerial Systems, balloons and satellite systems for security missions
NOVELTIS, France
The TechForFire project provides an innovative and unique service for supporting tactical firefighting during the crisis management phase.

eForm-Solutions AG, Switzerland
ping4alerts! is a mass notification system for worldwide usage on smart phones via IP communication, addressing hyperlocal reachable users with alerts.

JOANNEUM RESEARCH Forschungsgesellschaft mbH, Austria
Airborne data acquisition and mapping system ARGUS is applied for the support of operational units through improved networking and provision of up-to-date information.

German Research Centre for Geosciences (GFZ)
Helmholtz Centre Potsdam Center for Early Warning Systems, Germany
SENSUM/ SIBYL - vulnerability is a monitoring early warning system for rapid vulnerability, monitoring and rapid impact assessment (project financially supported by the EU-FP7 research programme).

Danimex Communication A/S, Denmark
Digital Mobile Radio Solution (DMR MOTOTRBO) is a rapid deployment and temporary deployment communication solution in order to establish a safe and secure communication in the area of operation.

GEOLINK SATELLITE SERVICES, France
Supply of resilient communication networks during emergencies.

CIMA Research Foundation, Italy
RASOR Project for rapid analysis and spatialisation of risk implementation for months with the aim of a web-based platform for multi-risk assessment (project financially supported by the EU-FP7 research programme).

Environics Oy and Observis Oy, Finland
CBRN monitoring equipment used to generate and communicate information relevant for the timely management of emerging disasters, prevention, preparedness, response and recovery.
Outdoor exhibition

- EU response to the Ebola outbreak in West Africa
- Remotely Piloted Aircraft Systems in Disaster Management
- Public-private partnership in responding to emergencies

The exhibition will showcase examples of new technologies used in the disaster management field, supported in most cases through EU financial support or EU policy initiatives, and also new technologies procured through a public-private partnership approach.

EU Ebola response to the Ebola Outbreak in West Africa

The European Commission coordinates EU and Member States support to the Ebola affected countries, including humanitarian aid, technical expertise, longer-term development assistance, investment in research for a vaccine and evacuation means for international humanitarian workers. The overall EU and Member States financial aid is close to €1.4 billion. The situation is being closely monitored by the Emergency Response Coordination Centre (ERCC), which serves as the response coordination hub under the authority of the EU Ebola Coordinator, Commissioner Christos Stylianides.

The exhibition displays examples of EU and Member States capacities actually deployed, such as a laboratory for testing suspected Ebola patients, and the medical evacuation system for suspected or infected workers. Examples include the Belgian, French and Luxembourgish responses to fight the Ebola epidemic.

Belgian laboratory to fight Ebola in Guinea

Over thirty Belgian experts were deployed to N’Zérékoré (Guinea) from December 2014 until March 2015. Their efforts within the B-LiFE laboratory have contributed to saving lives and putting a halt to new cases in the region as of mid-February. In addition, the mission kick-started the European Union Civil Protection Mechanism’s new “voluntary pool”. The B-Life laboratory benefitted from financial support of the EU FP7 Research Programme, the European Space Agency, and also from the European Union Civil Protection Mechanism. It was also supported by satellite capacity by Emergency.lu, while the Copernicus Emergency Management Service allowed for the preparation of epidemiological maps.

Luxembourg medical evacuation solution

Luxembourg was among the EU Member States who decided to contribute to building a European Ebola medical evacuation capacity. The planes already used for routine medical evacuations have been adapted for evacuating Ebola suspected and infected cases. This capacity has already been used for evacuations from Sierra Leone to Europe. The entire operations also benefitted of financial support through the European Union Civil Protection Mechanism and the resulting evacuation capabilities are now part of the newly created European Emergency Response Capacity / Voluntary Pool of response capacities.

Medic’Air International

Medic’Air International is a French private company constantly dealing with exceptional medical situations such as the repatriation of acute and ordinary patients on air ambulance. Medic’Air International made available its
services to the EU medical evacuation system, put in place by the European Commission. Patients suffering of haemorrhagic fever such as EBOLA can be repatriated thanks to the BAT (Biorisk Air Transport) procedure designed by Medic’Air in 2011. Five EBOLA missions took place so far from West Africa to Europe.

The ICARUS project deals with the development of a set of integrated components consisting of assistive UAV, Unmanned Ground Vehicles (UGV) and Unmanned Maritime Systems (UMS) equipped with victim detection sensors to assist SAR teams.

Remotely Piloted Aircraft Systems (RPAS) in Disaster Management

Unmanned Aerial Systems, sometimes referred to as drones, have been or can be used in disaster management operations. These systems improve the capacity for data and image collection for response in the midst of emergencies and crisis. They are particularly useful in dangerous and life-threatening situations where infrastructure is destroyed or was lacking to begin with, when situation awareness from land is limited, or when operational conditions do not allow the deployment of any other systems. The European Commission is also co-financing an important number of RPAS research & development projects in the disaster management sector. The examples include:

Danoffice IT took part in supporting the Government of the Philippines after the Typhoon Haiyan (2013), where more than 9.6 million persons were affected, by sending two Unmanned Aerial Vehicles (UAV) teams to Tacloban. The drones were used alongside with the Search and Rescue (SAR) teams. With a live video, thermal imaging and geo-tagging UAV were able to perform a fast aerial assessment.

The TIRAMISU project’s aim is to provide the Mine Action community with a toolbox to assist in addressing the many issues related to Humanitarian Demining. Both projects supported SAR teams with sophisticated tridimensional (3D) data processing algorithms during the response to the massive flooding in the Balkan in spring 2014. Icarus and Tiramisu projects are co-financed by the EU FP7 Research Programme.

The URready4OS project’s aim is to make available to the European Civil Protection Mechanism a fleet of Autonomous Underwater Vehicles (AUV), Unmanned Surface Vehicles (USVs) and UAV with operational capability to intervene against oil spills in European Seas using new cooperative multivehicle robotic technologies. This project is financially supported by the European Union Civil Protection Mechanism.
Public-private partnership in responding to emergencies: TurboJet – powerful extinguishing system by means of airplane turbines

The TurboJet (or «Turbolöscher») is a powerful intervention vehicle that is used by Belgium in case of major incidents on its territory and in the border regions. This system is the result of a public-private partnership between Belgian Home Affairs and the Antwerp branch of BASF, worldwide leader of the chemical industry. It has a reach that goes 3 to 4 times further than the traditional extinguishing systems thanks to its two airplane turbines that are used to eject water with a flow rate of 8000 litres/minute.

The TurboJet was designed by BASF and built by the company ZIKUN. Outside of the BASF site, its deployment in the field is executed, at the request of the fire brigades, by the civil protection that is responsible for its use and the supply with water or foam.

RPAS Demonstration on 6&7 May

A demonstration of RPAS and how it is used for disaster management will take place on the Berlaymont esplanade. The demonstration consists of three flights of approximately 15–30 minutes each, according to the following time schedule:

<table>
<thead>
<tr>
<th>Time Slot / Demo</th>
<th>Time Slot / Demo</th>
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<tbody>
<tr>
<td>6 May 2015</td>
<td>7 May 2015</td>
</tr>
<tr>
<td>13h00 – 13h30 / System 1</td>
<td>12h45 – 13h15 / System 2</td>
</tr>
<tr>
<td>16h05 – 16h20 / System 3</td>
<td>15h15 – 15h30 / System 1</td>
</tr>
<tr>
<td>18h00 – 18h30 / System 2</td>
<td>17h30 – 18h00 / System 3</td>
</tr>
</tbody>
</table>

This demonstration is accessible to everyone, no registration is foreseen. While the demonstration is taking place, a commentator will explain the various flight scenarios and response capacities.
<table>
<thead>
<tr>
<th>EXHIBITOR</th>
<th>PROJECT EXHIBITED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgian Royal Military, SpaceTEC &amp; partners</td>
<td>I CARUS and TIRAMISU - RPAS in disaster management (EU co-financed research and development projects)</td>
</tr>
<tr>
<td>DANOFFICE (Denmark)</td>
<td>RPAS technologies - civilian drones used in disaster management</td>
</tr>
<tr>
<td>Universidad Politécnica de Cartagena (Spain) and partners</td>
<td>URready4OS project - Multivehicle robotic technologies for oil spills (financially supported by the EU Civil Protection Mechanism)</td>
</tr>
<tr>
<td></td>
<td>Medical evacuation for Infectious Disease Patients</td>
</tr>
<tr>
<td></td>
<td>ATI “Bubble” – Medical Evacuations</td>
</tr>
<tr>
<td></td>
<td>Public-private partnership in responding to emergencies: TurboJet - powerful extinguishing system</td>
</tr>
</tbody>
</table>
Acknowledgement: the Forum team would like to thank Flight Plus for their support in obtaining the flight permit for the drone demonstration.

HIVE, created by Flight Plus, was awarded at the 2014 SESAR (Single European Sky ATM Research) SWIM (System Wide Information Management) Master Class “Best in Class Awards”. HIVE is a platform created to safely integrate Unmanned Aircraft Systems (UAS) in Very Low Level (VLL) airspace. It can be used in many domains for various purposes and in combination with many applications, including: safe operation of UAS; monitoring of UAS (both mobile or web); enhancing privacy protection; reducing security risks; facilitating UAS operations; fast deployment of UAS in line with the applicable regulations.
EU Civil Protection Mechanism
created in 2001

32 Participating States
and soon Serbia and Turkey

Activations of the EU Civil Protection Mechanism
since 2001 following request for assistance

215 times
81 inside EU
134 outside EU

Any country in the world
can call on the
EU Civil Protection
Mechanism to help

Emergency Response Coordination Centre
operational heart of the EU Civil Protection Mechanism

Monitors disasters and provides real-time information
around the globe

24/7

Provides satellite maps for crises

x1 240

Supports transport of assistance

Coordinates joint European response operations

One of the major risks for Europe: floods
Union Civil Protection Mechanism

The Emergency Response Coordination Centre (ERCC)

By: DG ECHO

When a disaster strikes, every minute counts for saving lives. Immediate, coordinated and pre-planned response is essential. The EU is committed to providing disaster response in a timely and efficient manner and to ensure European assistance meets the real needs in the population affected, whether in Europe or beyond.

The Emergency Response Coordination Centre (ERCC) is the flagship initiative of the Commission in the area of crisis management. It aims at an immediate, coordinated and pre-planned EU response that saves lives during an emergency. The ERCC was established within the European Commission's Directorate-General for Humanitarian Aid and Civil Protection (ECHO) in May 2013. It is a successor to the Monitoring and Information Centre (MIC) which, for over 10 years, was responsible for coordinating and facilitating disaster response in the framework of the Union Civil Protection Mechanism.

ECHO is promoting three main functions of the Centre that are complementary to each other:

- Servicing the Member States with regard to coordinating/facilitating civil protection (CP) assistance in the framework of the Union Civil Protection Mechanism;
- Facilitating humanitarian aid coordination within ECHO and the Union as a whole, including synergies with CP assistance; and
- Serving as the crisis management coordination platform for whole Commission and for the Solidarity Clause invocation, at the heart of the EU’s emergency management architecture.

Ensuring effective implementation of the civil protection mandate

The primary task of the ERCC is to support and facilitate the EU’s CP operations. The ERCC ensures 24/7 monitoring and immediate reaction to disasters all over the world. Any country affected by a major natural and man-made disaster inside or outside the EU can make an appeal for the European in-kind (CP) assistance directly to the ERCC. The Centre collects and analyses real-time information on disasters, monitors hazards, prepares plans for the deployment of experts, teams and equipment, and works with Member States to map available assets and coordinate the EU’s disaster response efforts by matching offers of assistance to the needs of the disaster-stricken country. It has capacity to deal with three simultaneous emergencies in different time zones, around-the-clock. The ERCC serves as a coordination hub facilitating a coherent provision of European in-kind assistance during emergencies helping to cut unnecessary duplication of efforts and to maximise synergies.

The ERCC also supports a wide range of prevention and preparedness activities, from awareness-raising to training and field exercises simulating emergency response. Its well-equipped meeting and communication facilities enable interaction and dialogue with operational partners, the scientific community and other stakeholders worldwide.

The Centre disseminates relevant disaster related information to Member States and
other actors involved in disaster response as well as for the general public. It issues general information products on a regular basis, such as ECHO Daily Flash and ECHO Daily Map, as well as reports that are related to a specific crisis (e.g. Syrian refugees), such as ECHO Crisis Flash, ECHO Civil Protection Message, ECHO Crisis Report. The textual and visual (infographics, maps, etc.) information produced by the ERCC provides a popular and easy way to communicate details on the impact of disasters and on EU response.

The ERCC makes effective use of satellite maps that have become a functional tool in disaster management during the recent years. The Centre serves as an entry point for requests of satellite maps through the Copernicus Emergency Management Service, providing disaster managers with timely and accurate geospatial information derived from satellite remote sensing, completed with data from the field and from open sources. The Copernicus service has been used frequently in support of emergency management by Member States, third states, Commission services and international actors. During the floods in Serbia and Bosnia and Herzegovina in May 2014, the ERCC supplied 80 satellite maps to support the relief efforts of local authorities and EU teams deployed to the two countries.

The Centre is developing capacity to implement additional tasks stemming from the new CP legislation. The key new element for the ERCC is the establishment of a “voluntary pool” of Member States’ assets on stand-by for the European operations. This pool will further improve the speed, quality and predictability of the European response. The ERCC will also lead work on the advance planning of operations, notably through a set of typical disaster response scenarios, to make Europe better prepared for emergencies.

The rising trend in natural and man-made disasters is calling more than ever for closer coordination and innovative mechanisms of cooperation between scientific, policy and operational communities. The work in preventing disasters and reducing risks will become more important, both in Europe and internationally – with a clear need to enhance our analytical capacities to better anticipate, plan for and reduce disaster risk.

With its reinforced mandate and the support of the Joint Research Centre of the Commission, the analytical capacity of the ERCC has seen constant improvement during the past two years. Moreover, a pilot project to link monitoring centres of ten European countries has been approved by the European Parliament with the financing decision currently awaiting its adoption. The long-term goal is to establish a “knowledge centre”, with the ERCC becoming a central hub, linking scientific centres across Europe to allow for evidence-based decisions on the best possible response with the most appropriate means available.

Facilitating humanitarian aid within ECHO and the Union as a whole

Following the Commission’s reorganisation and inclusion of both humanitarian and CP instruments under the “new” DG ECHO in 2010, synergies between the two instruments are being built. A good example of successful coordination is the response to Typhoon Haiyan – one of the most destructive cyclones ever recorded – that
struck the Philippines in November 2013. The ERCC organized coordination and information-exchange meetings with Member States and partners from both CP and humanitarian fields, thereby facilitating a coordinated EU response. The overall European response was impressive, as all the Member States provided in-kind assistance through the Union CP Mechanism and/or humanitarian funds.

The ERCC as an emergency management coordination platform for the whole Commission and broader EU

The EU is applying a “networked approach” with a view to maximising synergies in its response to disasters. The ERCC, as a key operational hub for disaster management within the Commission, is directly linked with sectoral Commission services that have specialised emergency management functions, including in DG Home Affairs (HOME, terrorist acts), DG Health and Food Safety (SANTE, pandemics), DG Energy (ENER, nuclear issues), the Joint Research Centre (JRC, scientific research and disaster modelling) and DG Mobility and Transport (MOVE, transport disruptions). All these services are linked through ARGUS, a Commission-wide cross-sectoral coordination network for disaster management operating under the auspices of the Secretariat-General and supported by the ERCC at the technical level.

The ERCC provides a 24/7 facility with experienced staff and the relevant equipment to support other EU services, as necessary. To fulfil this role for the different EU’s crisis functions, a series of MoUs have been signed with the above-mentioned DGs.

The networked approach equally applies at inter-institutional level, in terms of coordination mechanisms with the Council, the EEAS and the Member States. The ERCC has been identified as the EU’s operational entry-point in case of invocation of the Solidarity Clause by a Member State that has been hit by an overwhelming disaster.
Synergies between Civil Protection and humanitarian assistance in the response to the Ebola crisis

By: DG ECHO

While the integration of civil protection and humanitarian aid was already well underway within the EU, the Ebola crisis greatly accelerated this process due to the need for a rapid scale-up of response and support capacities. This was largely done through the EU Ebola Task Force, hosted in the European Commission’s Emergency Response Coordination Centre (ERCC).

Because of its unprecedented scale and nature, the crisis required the use of diplomatic, humanitarian, development, research, military and civil protection instruments. As the crisis involved so many sectors and many response actors, the response needed a well-coordinated European approach. With daily meetings for several months in a row, the EU Ebola Task Force ensured the shared information and common understanding so crucial for all aspects of the response, and thus the close cooperation of actors not or less used to working together.

Broadly speaking, the humanitarian response addressed the frontline. Humanitarian experts were deployed to liaise with partners and local authorities and funding was provided to support surveillance, diagnosis and treatment of Ebola patients, maintenance of regular health services, and for medical training and medical supplies, including personal protective equipment. The European Civil Protection contribution has ensured that this frontline work can take place through providing health and humanitarian personnel and equipment, and in particular by ensuring there is a safe and guaranteed medical evacuation system. Both elements have therefore been crucial.

Key components of the civil protection role in the response have been the transport of staff and the necessary material for their teams and emergency treatment units, the provision of medical teams; a CBRN (Chemical, Biological, Radiological, Nuclear) laboratory, emergency treatment units, medical kits, chlorine and sanitation, training facilities and trainers, and the deployment of experts. The EU has received transport co-financing requests for over €15.5 million and financed well over 100 flights.

International health and aid workers on the ground are the backbone of the global response to the Ebola epidemic. While the Commission’s humanitarian aid budget is financing teams and their work through the United Nations, Red Cross family and NGO partners, a number of EU Member States authorities have also channelled significant additional contributions through the EU Civil Protection Mechanism (EU CPM).

In September 2014, for example, the lack of a medical evacuation solution for Ebola Virus Disease (EVD) cases was identified as a major bottleneck for the deployment of European health and humanitarian workers to the affected African countries. By the end of October, the ERCC, working
in close collaboration with the Health Security Committee, chaired by the European Commission, and with the World Health Organisation, had established a medical evacuation system for all international humanitarian staff working in the affected countries. It provides 24/7 evacuation to specialised EU hospitals.

Another example is the Karel Doorman ship: the largest and the newest vessel of the Dutch navy had two rotations during 2014, mobilising important relief cargo from governments (AT, BE, CZ, DE, FI, FR, HU, NL, RO, SK, UK) and humanitarian and UN organisations (Unicef, Welthungerhilfe, World Food Programme). Member States’ contributions have been coordinated and their transport was co-financed through the EU CPM and the ERCC.

Read more
Ebola in West Africa
http://ec.europa.eu/echo/ebola-in-west-africa_en

Overall EU response to Ebola

The European Union together with its Member States has made available close to €1.4 billion in financial aid to help contain the outbreak of Ebola virus disease (EVD) in West Africa.

The epidemic has taken a heavy toll on life. Despite the recent decline in case incidence in parts of the region, there is no room for complacency. Continued response efforts are necessary to get down to zero Ebola cases.

The European Commission coordinates EU support and provides affected countries with humanitarian aid, technical expertise, longer-term development assistance, investment in research for a vaccine and evacuation means for international humanitarian workers.
One of the major risks for Europe: floods

+20 million
EU population at risk of flooding

Prevention and Preparedness*
Coordination platform for crisis management in the EU

- Over 800 experts participated to the exchange of experts
- More than 7,500 training places
- 36 full-scale European exercises
- 17 modules committed to the Voluntary Pool
- 34.5 million Euros and over 100 projects in disaster prevention and preparedness

EU HUMANITARIAN AID AND CIVIL PROTECTION

Sources: EU | *activities from 2007 onwards

23/04/2015
Union Civil Protection Mechanism prevention and preparedness activities

By: DG ECHO

Between 2002 and 2014, natural disasters caused over 80,000 deaths and more than €100 billion economic losses in the EU. Man-made disasters such as industrial accidents caused further damage. Investing in prevention and preparedness can save lives and reduce economic impacts. It further contributes to growth by increasing demand for innovative technologies and reducing risk factors.

Disaster prevention and preparedness policy in the EU has been significantly strengthened since the time the Mechanism was first established in the year 2001. The EU can now support its Member States by, for example, encouraging cooperation and mutual learning through peer reviews, exchange of best practice and enhancing knowledge, risk management planning and strengthening the response capacity of the Union.

Risk Assessment and Risk Management Capability Guidelines

Risk assessments are the starting point for all risk management and are essential. In 2010, the European Commission produced risk assessment and mapping guidelines to help EU Member States develop national risk assessments. All EU Member States have to produce national multi-hazard risk assessments by the end of 2015. A summary is shared with the Commission, who produces an overview of risks in the EU on this basis. The overview enables the Commission and Member States to identify the main risks in Europe, pinpoint cross-border risks and allows Member States that share risks to work together. In addition, guidelines for the assessment of national risk management capability have been developed. Member States use these to produce their assessments of financial, technical and administrative capacities to implement prevention and preparedness measures and carry out risk assessments and risk management planning. The first assessments are officially due in 2018.
Peer reviews

The EU is encouraging learning and exchange of experience to improve disaster risk prevention and preparedness through peer reviews and exchanges of experts. Two pilot peer reviews have taken place in Finland and in the UK, resulting in a large number of best practices for all countries and recommendations for the reviewed countries. In 2015-2016, six peer reviews will take place in EU and neighbouring countries. Reviews can cover general disaster management or focus on risk assessment, risk management planning or preparedness. The peer reviews are strictly voluntary.

Read more

2014 Peer Review Report, Finland

2013 Peer Review Report, United Kingdom

Knowledge management and scientific support

Investing €1 in prevention can save €4-7 in response.

In order to arrive at well-designed and targeted prevention measures it is important to use scientific evidence and best possible data. Creating a “knowledge centre” for disaster risk management will enable the EU to develop networks between scientific centres and policymakers. It will also improve the use and uptake of scientific research and operational knowledge and assess the current state of disaster risk management (DRM) science and technology in Europe, including technological and operational challenges and gaps. The EU has developed guidance for its Member States interested in recording and sharing disaster loss data.

European Emergency Response Capacity (EERC/voluntary pool)

Following the adoption of the Implementing Rules for the civil protection legislation, a European Emergency Response Capacity (EERC) was formally launched on 17 October 2014. This allows the Union Civil Protection Mechanism (UCPM) to move from the previous ad hoc response to disasters to a more predictable and reliable system that facilitates better planning and coordination.

The EERC is a voluntary pool of response capacities and experts pre-committed by the Participating States of the UCPM for deployment under the UCPM, i.e. available as part of a collective European response to a disaster. Participating States can also join forces under the voluntary pool and develop rotation systems or multinational teams. The quality of the assistance is ensured through the establishment of quality criteria and a certification process. The voluntary pool will enable a faster and more coherent disaster response as well as better coordinated planning at European and national levels.

In return for this commitment, Participating States benefit from financial support for adapting the modules to the international context and transport grants in case of activation of the capacities. In particular, any state participating in the EERC can benefit from the following EU financial support:

© Ministry of the interior, France
• As part of the EERC, the transport of these capacities (including transport for the rotation of staff) is eligible for co-financing up to 85% by the EU.

• So-called “adaptation costs” for the teams to work in an international environment can be granted up to 100% by the European Commission (provided that this does not exceed 30% of the average cost of developing such capacity “from zero”).

The 2015-2016 cycle of modules exercises will serve for the first time as a platform for the certification of the response capacities in the voluntary pool. These modules exercises are planned to take place between September 2015 and June 2016. The Commission invited Member States to indicate whether they wish to have response capacities certified during this cycle. Based on the information delivered during the certification process, the Commission will declare the capacity “certified” or provide recommendations for improvements.

By end of March 2015 seven Participating States have registered or formally committed to register so far 31 modules and other response capacities. In particular, one USAR (Urban Search And Rescue) module, two special Ebola medical air evacuation capacities and other response capacities are already registered in the Voluntary Pool. A further 27 Modules (of 13 different types) are in the pipeline. Up to date there have been two deployments from the voluntary pool, both in the context of the European response to the Ebola crisis. The first deployment took place in December 2014, when the mobile laboratory B-LiFE, registered in the EERC by Belgium, was deployed to Nzérékoré in Guinea. In 2015, a medical evacuation capacity, registered in the EERC by the Grand Duchy of Luxemburg, was mobilised in order to perform medical evacuations of Ebola virus infection suspected patients from West Africa.
Training Programme

The Training Programme is an essential part of the Union Civil Protection Mechanism. Not only is it crucial in preparing experts for international civil protection assistance interventions both inside and outside Europe, but it also provides an excellent platform for experience-sharing and networking between national experts from participating countries to the Mechanism.

Since it was launched in 2004, the UCPM Training Programme has developed and now comprises 12 different types of courses and an online preparation and testing tool. The target group of the courses is fairly wide, and the Training Programme is open to a number of different categories of experts. These can range from assessment and coordination experts to key personnel of EU modules or Technical experts within a certain field of work, such as marine pollution experts, environmental experts, experts in geo-hazards or logistics in emergency operations, and medical staff.

By May 2015 (1st to 12th course cycles), almost 7,900 course places in 370 training courses will have been offered mostly to the Participating States, but also to the United Nations, third countries and EU bodies.

All courses combine theory and lessons learned from field experience, and they incorporate international guidelines and standard operating procedures. In addition, they all contain practical exercises (either field and/or table-top) based on different emergency scenarios where participants get the opportunity to practice their skills in a realistic setting.

The following course structure will be valid until mid-2016. Experts from all over Europe are currently working on further developments of the Training Programme so as to guarantee a professional training possibility in the next four training cycles, which will go until 2020.
Union Civil Protection Mechanism Exercises

The Union Civil Protection Mechanism (UCPM) Exercises are contributing to the efforts to improve preparedness for cross sectorial and complex emergencies. These exercises are mostly based on grants with an annual budget in 2015 of EUR 4.6 million, of which part of the funding is reserved for EU’s partners in the EU Neighbourhood and the enlargement countries.

The European Commission publishes a call for proposals for these exercises on its website every year, usually in April. Following a thorough evaluation procedure, the Commission, within the available budget for the programme, will select a number of proposals for funding which may vary from year to year. In 2014 there were two exercises of this kind, COORDEX in Finland and PROMETHEUS in Greece, whereas there will be three in 2015; HARBOREX in Norway, Mura in Croatia and Westsunami in Spain. The call for proposals for exercises in 2015 was published on the ECHO website on 24 March 2015 and the deadline for applications is set to 24 June 2015.

The aim of this programme is to support exercises simulating the situation and conditions of major emergencies (due to natural and man-made disasters). An exercise simulation requires the activation of the European Civil Protection Mechanism, and the involvement of Participating States of the UCPM, through the ERCC, mainly with deployment of intervention teams (including modules), teams of experts, national key contact point staff, officials of the Institutions and other intervention support. A part of the budget for these exercises is reserved for participation by the enlargement countries and countries under the European Neighbourhood Policy.

As regards the specific scenario of the exercise, there is no requirement, but there are other minimum requirements that must be fulfilled such as the application of the EU Host Nation Support Guidelines, a comprehensive observers programme as well as participation of a EUCPteam and the ERCC in the exercise.
**CoordEX 2014, Finland**

The Crisis Management Centre (CMC) in Finland organised the exercise CoordEX 2014 in Kuopio, Finland from 7-11 April 2014 together with partners from Estonia, Germany and the UK. CoordEX 14 was one of two UCPM exercises in 2014 selected for funding by the European Commission.

The scenario of CoordEX was a flood in a third country “Savolax” (constructed), a land-locked country only bordering Finland. Savolax is not member of the EU or NATO. The flood resulted in need for international assistance, and a request for assistance was sent to the ERCC.

The structure of CoordEX was different from a normal full scale exercise, as the modules (operational assets) involved were fictive, and leaders and deputy leaders were played by role players. As the main objective of the exercise was to train EUCP experts and their cooperation with TAST teams, there were four EU Civil Protection teams with 6-7 EU experts exercising independently from each other. A technical assistance and support teams (TAST) had been allocated to all the teams, whereas two teams had an ERCC Liaison Officer, and three teams a UNDAC expert.

An evaluation conference of the project CoordEX 2014 was hosted in Estonia in June 2014 and feedback from the participants was overwhelmingly positive. The evaluation report pointed out several points for improvement such as the need to select experts with appropriate skills, improvement of procedures within communication and the need to strengthen the participation by the ERCC in exercises.

“As the head of the exercise [EU CoordEx] I was pleased to see very strong collaboration between EU civil protection teams and multinational TAST teams. The development of this collaboration was actually the primary target of our exercise. I am especially happy about the experts’ feedback [...] as it is clear that the goals to deepen the mutual understanding of these interlinked elements within the Mechanism was met. The best thing in international exercises, as the EU CoordEx 2014, is the cooperation between many European colleagues within the field of civil protection towards our common goals.”

Ville-Veikko Pitkänen, 
Exercise Director

**Modules Exercises**

The UCPM modules exercises programme is now bigger than before and will be used as a platform for certification of the Voluntary Pool assets.

The objectives of the modules exercises is to establish a common practical understanding of the cooperation and achieve an interdisciplinary interoperability between modules, other response capacities as listed in the implementing rules, technical assistance and support teams (TASTs) and the EU Civil Protection Team (EUCPT) in an international environment.
The other aim is to improve civil protection preparedness for and response to disasters by providing a testing environment and learning opportunity for all actors involved in civil protection modules, other response capacities, technical assistance and support teams and EUCPT, as well as testing the procedures of the Mechanism.

The exercises will also be used as part of the certification system for the voluntary pool.

The main lessons identified during the previous modules exercises were related to the enhanced proactivity needed from the modules, the lack of common understanding of the role of the Base of Operations, the poor use of Virtual OSOCC and the need for more OSOCC (On Site Operations Coordination Centre) training among EU civil protection experts and the need for an UCPM Field Handbook as a field guide for civil protection operations.

In general, the evaluation of exercises by participants has been very positive. The real feel of the exercises, in which modules and experts are allowed to freely establish their next steps given that the exercises are not directed, as well as the participation of an Emergency Response Coordination Centre (ERCC) Liaison Officer, have been highly valued.

In coming cycles there will be five modules tabletop exercises (TTX) for key personnel of modules, EUCP experts and TAST and nine modules field exercises (FX) for EU CP modules, TAST and EU CP experts.

Prevention and preparedness projects

Europe is facing a wide range of disasters every year: floods, forest fires, earthquakes and various technological, radiological and environmental accidents. Disaster prevention and preparedness are therefore important elements of the Civil Protection cooperation. The European Commission’s DG ECHO through its Union Civil Protection Mechanism1 supports disaster prevention, preparedness and response activities. Since 2007 more than 100 prevention and preparedness projects have been co-financed through grants by the DG ECHO, focusing on areas where a common European approach is more effective than separate national approaches. Grants are available also to EU enlargement and European Neighbourhood Policy countries.

In 2014 almost 10 m€ was granted to 31 projects. In 2015 a budget of 8,5 m€ is available for the civil protection prevention and preparedness projects.

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A few examples of these projects are presented below.

**Raising Awareness and Improving Effectiveness of Cave Rescuing within Community Civil Protection Mechanism (EU PROTEUS)**

The EU PROTEUS project has contributed to a better cross border cooperation in cave rescuing between Slovenia and Croatia. This is very important considering the fact that about 43% of Slovenian territory is of a karst nature, over 10,000 caves are known in Slovenia and in Croatia there are approximately 7,000 caves. Within the project's duration cooperation between partners has resulted in: International Cave Rescue Instructor Training Programme, Standardisation of procedures for safe working in caves, Study of Slovenian and Croatian legislation concerning caves and caving and Manuals for cavers and cave rescuers. [http://eu-proteus.eu/](http://eu-proteus.eu/)

**Enhancing disaster management preparedness for the older population in the EU (PrePAGE)**

The PrepAGE project will identify the needs, structures and measures necessary during disasters to improve access to older people who may be isolated and living at home, have limited resources or mobility or impairments. The project will equally focus on older people, health and social care personnel and volunteers to raise awareness and improve readiness to assist others during emergencies or disasters. Guidelines for Emergency and Disaster Management organisations will be developed on how to incorporate the needs of older people into disaster preparedness plans. [www.prepage.eu](http://www.prepage.eu)
Autonomous Underwater Vehicles Ready for Preparedness of Oil Spills (URready4OS)

The aim of URready4OS is to make a fleet of vehicles with the latest technology (robots) trained to detect an oil spill under the sea from different perspectives. One of the goals of the project is also to make these robots carry out combined and joint operations. A “White Paper-guidelines” will be developed to use with this type of vehicles setting out procedures for rapid deployment in case of accidents. [http://www.upct.es/urready4os/?lang=en](http://www.upct.es/urready4os/?lang=en)

Cooperation project on strengthening EU’s Nordic USAR modules (EU-NU)

The EU-NU project supports and complements efforts made by Finland and Sweden in the field of Urban Search and Rescue (USAR) in cold conditions. The project will develop a joint Nordic USAR team capable of operating in cold conditions and will share this knowledge with the Participating states of the Union Civil Protection Mechanism.

Increasing preparedness capacities across the Mediterranean (IPCAM)

The overall objective of the IPCAM project is to improve awareness of the seismic risk of the
population in Tunisia as well as to improve their capacity to respond to disasters. The project will provide a platform to intensify and strengthen working relations, co-operation, transfer of know-how and best practices in the field of preparedness measures at cross-border (Italy-Tunisia) and regional levels (Tunisia - Germany and the EU Civil Protection Mechanism). Within the project guidelines will be developed on the implementation of measures to reduce vulnerability and mitigate seismic risk as well as guidelines for risk management policy aimed at mitigating the impact of socio-economic losses. www.protezionecivile.gov.it

**Awareness of Disaster Prevention for vulnerable groups (ADAPT)**

In disaster situations such as floods or earthquakes, the elderly or people with disabilities are particularly vulnerable and require additional attention. However, they are often neglected in existing municipal emergency plans, particularly if they live at home instead of in a care institution. During emergency evacuations, their location and special needs are often unknown to relief workers. The reason for this is not the lack of information, which exists as both formal and informal knowledge, but the lack of structure of this knowledge. ADAPT aims to alleviate this problem by making and keeping this information usable by involving the local communities themselves in improving this part of their disaster resilience. http://adapt.samaritan-international.eu/

**Efficient fire risk communication for resilient societies (eFIRECOM)**

eFIRECOM aims at enhancing the resilience of citizens to wildfires in interface areas from the Mediterranean region, through effectively promoting and increasing awareness and participation on the culture of risk with updated knowledge and best practices. The low social awareness regarding the exposure to fire risk combined with the reduced individual capacity to prevent and face emergencies increase both social vulnerability and the cost of civil protection actions. A communication toolkit will be developed for the capacity building of citizens and communities towards wildfire risk prevention, adapted to specific target audiences. The project aims also to disseminate operational and strategic recommendations for the improvement of the communication on risk and reduction of social vulnerability to wildfires in Mediterranean areas, transferred to the relevant authorities. www.ctfc.cat
EU support to marine pollution prevention, preparedness, detection and response

By: DG ECHO

In the past decades, due to numerous safety measures and enhanced surveillance, the amount of big oil spills has gone down considerably. However, more mega ships in our seas and oceans, dense shipping traffic and offshore oil and gas are just a few hazards that may lead to a major disaster similar to the historic accidents that claimed human lives and caused huge socioeconomic and environmental impacts with long lasting effects.

Those big accidents like Torrey Canyon, Erika, Prestige and the Macondo drilling rig explosion have raised public concerns and pushed political decisions to enhance industry and governmental preparedness, response structures and contingencies. Cooperation and resource pooling and sharing has become ever more important. To that end, EU contributes increasingly supporting Member States and regional sea conventions adding new or extending on-going services and arrangements. Those are developed and provided by the Union Civil Protection Mechanism (UCPM) working closely with the European Maritime Safety Agency (EMSA) in Lisbon.

In case of a maritime incident and particularly in a marine pollution case, the Commission can offer an affected country all the tools available through the UCPM that are compatible with the polluter pays principle. In addition, it offers a substantial support provided by the Agency. The entry point of requests for assistance and the overall coordination of offers remains within the Emergency Response Coordination Centre (ERCC) in the European Commission. Such coordination is facilitated by the new dedicated Common Emergency Communication and Information System (CECIS Marine Pollution) that was launched into operation at the end of 2014. The tool is available for the use at EU level and within the regional sea conventions where EU is a contracting party. Besides this platform for the real time information exchange and other operational features, it also includes a database of marine pollution resources of EU Member States and EMSA. It is expected to be soon linked with the traffic monitoring and information system SafeSeaNet, operated by EMSA.

In the field of prevention and preparedness, the UCPM financially supports the Participating States and the EU Neighbourhood countries through prevention, preparedness projects and exercises calls for proposals. Thematic and geographical scope of the co-financed projects has ranged from a marine pollution e-learning tool, pollution risk assessment and identification of the most effective risk reducing and response measures in the North Sea, preparedness for oil-polluted shoreline clean-up in the Mediterranean, preparedness for chemical spills, to the development of the European module for oiled wildlife response, the protocols for a multivehicle fleet of autonomous underwater vehicles to track underwater spills and a full scale exercise in the Baltic Sea.

Read more

European module for oiled wildlife response
EMSA tasks in pollution preparedness, detection and response are focussed on providing operational assistance and information, mainly through the network of Stand-by Oil Spill Response Vessels, the CleanSeaNet satellite based oil spill and vessel detection and monitoring service and the MAR-ICE (Marine-Intervention in Chemical Emergencies) Information Service.

The current network of stand-by oil spill response vessels provides 18 vessels equipped with large-scale at-sea oil recovery technology. The vessels are based in all the regional seas of Europe and can be seen as a “reserve for disasters” to assist Member States. The Agency maintains contracts, upgrades the response capacity and monitors the performance of vessels, equipment and crew during drills and exercises. Since 2006 the network has been activated for deployment of vessels or specialised stand-alone equipment in seven occasions for EU Member States, responsible parties (e.g. SMIT within the Costa Concordia accident) and third countries (e.g. US during the Macondo incident). Recently the network is being adapted to respond to spills from offshore oil and gas installations based on geographical risk analysis and higher safety requirements for vessels.

In December 2014 the Agency launched an Open Procedure for aerial dispersant application services. If the procurement is successful, this new service will be operational in 2016. In addition, as of March 2015, EMSA has purchased and delivered 400 tonnes of dispersant at stockpiles in Malta and in Cyprus.

EMSA starts another new service that will provide specialised oil spill response stand-alone equipment. It will facilitate the inclusion of Vessels-of-Opportunity in the response chain and supplement Member States capacities with specialised equipment when needed. The service will be implemented in 2016.

CleanSeaNet, the European satellite based oil spill monitoring and vessel detection service is based on the near real time analysis of Synthetic Aperture Radar (SAR) satellite images and is available to 27 coastal States, including all EU coastal States, as well as Turkey, Iceland, Norway and Montenegro. When a spill is detected, a pollution alert is sent to national authorities which then decide on the follow-up. The alerts are available within 30 minutes of the satellite acquiring the image. Additional images can be requested during incidents. The service also supports the identification of polluters by combining CleanSeaNet images with vessel traffic information. From 2008 the overall detection trend has shown a reduction in the number of possible spills indicating that the monitoring service is giving results on the target to reduce ship source pollution.

With regard to hazardous and noxious substances (MAR-ICE service) the Agency together with other two parties (Cedre and Cefic) has established and maintained a network of experts to support and advise during the response to chemical spills. Questions such as “How will the substance spread in seawater?”, “What are the existing safeguards on board of the ship?”, “How to control the situation?” need to be answered to identify and prioritise hazards and associated risks before deploying the emergency response teams.

Collaboration between the European Commission and EMSA has been enhanced recently by signing a working arrangement to ensure joined efforts in terms of technical and scientific cooperation and real-time information exchange and to optimize the work of both.

EMSA contracted vessel DC Vlaanderen 3000 following an Open-Uboom formation during POLLEX 2014 exercise in the North Sea (© EMSA)
Partnerships

Union Civil Protection Mechanism cooperation with international partners

By: DG ECHO

The Union’s aim to promote consistency in international civil-protection and disaster management work is explicitly mentioned in the Treaty on the Functioning of the European Union.

Already before the Union Civil Protection Mechanism (UCPM) proved its effectiveness in relief operations in third countries there was a wide consensus that cooperation with third countries matters for disaster management. The European Commission financed numerous projects in the framework of EU development and humanitarian assistance, notably through DIPECHO (Disaster Preparedness ECHO).

Coordination and policy dialogue with third countries contribute to facilitate the projects’ delivery and to promote their sustainability and consistency.

In addition to the operational cooperation this consistency is also important for the international disaster management agenda. In the negotiation process of the Sendai Framework for Disaster Risk Reduction 2015-2030 DG ECHO led the European Commission inter-service group and coordinated work of all EU Member States.

DG ECHO cooperates closely with DG Neighbourhood and Enlargement Negotiations (NEAR) in the management of projects financed under the Instrument for Pre-Accession, and with DG International Cooperation and Development (DEVCO) in the management of projects financed under the European Neighbourhood Policy as well as national and regional programmes across the world. DG ECHO contributes to providing ensured coherence and consistency in disaster risk management work.

The new EU Civil Protection legislation with its increased focus on prevention allows EU enlargement and neighbouring countries to benefit from the support of the Mechanism. Implementing this ambitious objective requires a longer-term vision and a clear strategy.

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DG ECHO’s strategy, agreed and supported by the Member States, is based on two pillars: 1) dialogue with strategic and regional partners in the world, and 2) close cooperation with neighbouring countries. The direct dialogue with strategic and regional partners, including the Federal Emergency Management Agency (FEMA) in the USA, the Agency for Support and Coordination of Russian Participation in International Humanitarian Operations (EMERCOM), the Ministry of Land, Infrastructures, Transport and Tourism of Japan (MLIT), the Chinese Academy of Governance (CAG) - National Institute of Emergency Management (NIEM), the Emergency Management Office (EMO) and the Association of South East Asian Nations (ASEAN), facilitates operational coordination during emergencies. It also strengthens policy in international fora (such as the ASEM (Asia Europe Meetings) on disaster management and the recent Sendai Framework for Disaster Risk Reduction 2015-2030). Cooperation with strategic partners helps consolidating the EU position as an active policy shaper. It is embedding the Union Mechanism in an international network of first responders.

For the EU Neighbourhood the Union and its Member States gradually become partners in disaster management, thus ensuring effective coordination and a common vision. With the involvement of all available EU instruments, this way forward helps the interested countries to better prevent, mitigate and respond to disasters in their territory. It also minimises cross-border risks and allows integrating their capacities into the overall protection granted by the Union Civil Protection Mechanism. For EU enlargement countries, this vision includes the gradual alignment to the Union acquis in the field of civil protection and eventually the full integration in the Mechanism.

Finally, civil protection cooperation provides also opportunities to cooperate and engage in related policy field, in particular in Humanitarian Aid, where the exchange of best practices and a common understanding of humanitarian principles and the international response system are beneficial in many respects.

Working together with the Committee of the Regions

By: DG ECHO, Committee of the Regions

Regional and local authorities are at the forefront of disaster management in Europe. In many European countries regional or local administrations are responsible for the prevention, preparedness and response to disasters. The national level then gets involved from the moment when coordination is needed for bigger disasters affecting more than one region.

The Union Civil Protection Mechanism (UCPM) in turn facilitates the cooperation among the countries in Europe, whenever cross-border events require coordination, or the disasters reaches international dimensions, including assistance for countries elsewhere in the world. Each level plays its particular role.

The important role of regional and local authorities in disaster management is explicitly recognised in the UCPM Decision (Recital 7, Article 28(3)). Regional and local authorities thus need to be appropriately involved in the activities carried out under this Decision in accordance with Member States’ national structures.

The mission of the Committee of the Region (CoR) is to involve regional and local authorities in the European decision-making process and thus to encourage greater participation of citizens and the regional and local levels. It is therefore important to also appropriately involve regional and local authorities in the developments of the EUCP Mechanism.
“European Regions at the Forefront of Disaster Management”

Back-to-back with the 5th European Civil Protection Forum, a special joint event is co-organised by the Commission and the Committee of the Regions “European Regions at the Forefront of Disaster Management” on 5 May 2015. The event is hosted by Mr Christos Stylianides, the European Commissioner responsible for Humanitarian Aid and Crisis Management and Mr José Luis Carneiro, Chair of the Committee of the Regions Commission for Natural Resources (NAT).

The event aims to involve the regions closer in the EU civil protection cooperation. As disasters are becoming more frequent and complex, the EU is stepping up its support to citizens and authorities (national and regional) through multiple instruments, notably in the framework of the UCPM and various EU funding programmes. Concrete aims are to identify possible areas of future cooperation among the European, national, regional and local authorities in preventing, preparing for and responding to disasters. In two panel sessions participants to this workshop will debate how European regions can make best use of the existing instruments while advancing their disaster management capabilities.

The conference-type event brings together members of the Committee of Regions, notably those of the NAT (Natural Resources) and ENVE (Environment, Climate Change and Energy) Commissions with the disaster management community. It features key-note speeches followed by panel discussions and open exchange of views, as well as networking opportunities.

Cooperation with the military authorities

By: DG ECHO

Military assets and expertise might be very useful to support civil protection efforts in managing disasters, as exemplified by the recent mobilisation of the Dutch military vessel to transport large amounts of European assistance to Ebola-affected African countries. Currently, the military assets can be mobilised to support the European civil protection either directly through the Member States’ national contact points for civil protection or through the support of the EU Military Staff and their network of military points of contact. The latter avenue has been used successfully, in particular with regard to military and military-chartered transportation assets. In case of need, colleagues of the EUMS/Movement Planning Cell would be embedded in the ERCC during emergency response operations. Good examples of such cooperation include the Libya crisis (2011) and the Pakistan floods (2010).

The use of military assets might also be necessary in case of invocation of the Solidarity Clause by a Member State overwhelmed by a disaster or terrorist act. In this case regular procedures under...
the UCPM would apply or – should these prove not sufficient – an ad hoc decision by the Council might be adopted.

For the foreseeable future, the Commission will be looking into including some of the military assets in the European Emergency Response Capacity (in the form of the voluntary pool), taking advantage of the military expertise in the advance planning of response operations, examining whether the military (or dual-use) assets could be useful in filling gaps for the civilian disaster response, as well as a number of cooperative actions in the framework of the European Maritime Security Strategy.

The 2008 Humanitarian Aid Consensus and the Commission’s 2010 Communication on Disaster Response, articulates the intention to engage with private benefactors respecting humanitarian principles” and “private sector to prepare options on the commercial provision of transport and logistics for humanitarian and civil protection operations in disaster situations”. The World Conference on Disaster Risk Reduction (DRR) hosted by Japan 14-18 March 2015 and Sendai Framework for Disaster Risk Reduction 2015-2030 underlined the importance of public-private interactions.

Cooperation with the private sector

By: DG ECHO

New forms of private sector engagement, including partnerships between aid and emergency management agencies and corporations and business-driven innovation in a number of sectors are also developing. Many operational humanitarian agencies (including many ECHO partners) already have partnerships with the private sector to strengthen their response system and/or to render it more effective and efficient on disaster response, on preparedness/risk reduction. It is important to further encourage development and promote the sustainability of these initiatives.
Innovation in Disaster Management

Unmanned Aerial Systems

By: DG ECHO

Unmanned systems, sometimes referred to as drones, have become increasingly accessible for commercial and government applications. Unmanned Aerial Systems (UASs) have recently found acceptance for a broad range of applications in several fields, including civil protection and disaster management.

In these fields, UASs have *inter alia* improved capacities for data and imagery collection to support better decision making for response in the midst of emergencies and crisis, particularly in dangerous and life-threatening situations where infrastructure is destroyed or was lacking to begin with, when situational awareness from land is limited, or when operational conditions do not allow the deployment of any other systems. UASs also have the potential for delivering small, life-saving packages. Furthermore, operating UASs is generally cheaper than flying manned vehicles.

UASs deployment in the Union Civil Protection Mechanism missions within flooding (Serbia and Bosnia and Herzegovina) and explosion (Cyprus) scenarios have proved their added value, and their validity has been ascertained for the detection and surveillance of marine oil-spills or to support forest fire fighting. Research is currently looking into further technological developments to enlarge the potential for application.

However, the employment of UASs today faces several challenges. The regulation covering their flight in Europe is currently fragmented and slowly developing. Also, the technology guaranteeing their safe insertion into air traffic is still being developed. Finally, data protection, liability and security issues are still to be solved. The following years will be crucial to enable the release of the full potential of UASs.

DG ECHO will aim to facilitate the further use of RPAS in civil protection and together with the Member States examine where this key technology may in the future provide the biggest added value in disaster response operations.
The Contribution of Social Media in Crisis and Disaster Management

By: DG ECHO

The advent of social media has changed the way people communicate and the communication dynamics; this is particularly relevant in the emergency environment.

Information management has become a crucial feature of any disaster management agency, accessing in a timely manner, to relevant information is a key of success of more and more operations. However today anyone is potentially both source and recipient of information, this situation has a direct impact on the number and quality of information produced as well as on the need for emergency organizations to tackle the issue.

Social networks and new communication technologies play an increasing role for risk and crisis communication; they pose challenges but, at the same time, offer opportunities to reach more people and speed up response operations.

In recent years both the humanitarian and the civil protection sectors have demonstrated the potential of such instruments and a number of best practices has been developed. The European Commission has been researching and funding projects related to social media and are currently in the stage of identifying most relevant partners and tools that could be used for the purposes of the ERCC building on lessons identified by international partners and research projects.
EU instruments supporting disaster management

Research

Integrating science into the making and implementation of policies and the operational dimension of disaster management can greatly contribute to the full cycle of disaster risk management (DRM), from prevention to preparedness, response and recovery. Increasing vulnerability and exposure of people and assets, frequency and severity of hazards, combined with the related increased complexity of managing emergencies and risks, are pressing for innovative ways to enable, enhance and exploit the use of science and technology to their full potential in policies and operational actions in crisis management. To improve the interplay between science and policy, the knowledge and evidence base for DRM policy-making needs to be improved through advances in DRM technology and use of research results, and the interaction between sources and end users of scientific resources needs to be enhanced.

Under the new Union Civil Protection Mechanism, reinforced cooperation across the DRM cycle is to be achieved through a number of prevention, preparedness and response actions, requiring a more systematic use of science, stronger knowledge and evidence bases and improved sharing of knowledge and scientific expertise.

The Union’s Research and Innovation multiannual Framework Programmes (Horizon2020 and the 7th Framework Programme previously) support a range of research and innovation projects relevant to disaster risk management. Under the current Framework Programme Horizon 2020, Societal Challenge chapters on “Secure Societies” and “Climate action, environment, resource efficiency and raw materials” address the research needs across prevention,

Read more

Framework Programme Horizon 2020
http://ec.europa.eu/programmes/horizon2020/

Enhance Project “Enhancing Risk Management Partnerships for Catastrophic Natural Hazards in Europe”
http://enhanceproject.eu/

Projects selected under the annual Call for Proposals for Prevention and Preparedness in Civil Protection
http://ec.europa.eu/echo/funding-evaluations/financing-civil-protection-europe/selected-projects_en

Flood CBA (Cost-Benefit Analysis) project
http://www.floodcba.eu/main/

“Baltic everyday accidents, disaster Prevention and Resilience” project (BaltPrevResilience)
https://msb.se/baltprevresilience


CBRN field laboratory supported by the EU FP7 Programme (© B-Life)
preparedness and response actions in the areas of crisis management, disaster resilience, climate change, critical infrastructure protection and sustainability. An example of project funded under the 7th Framework Programme (FP7) is the Enhance Project on “Enhancing Risk Management Partnerships for Catastrophic Natural Hazards in Europe”, which aims at developing and analysing new ways to enhance society’s resilience to catastrophic natural hazard impacts.

A large number of research projects supporting prevention of, preparedness for and response to disasters have also been financed through Civil Protection funding and are managed by DG ECHO. Examples include:

• the Flood CBA (Cost-Benefit Analysis) project, supported by the European Commission and realised by a consortium of six partners from the United Kingdom, Greece, Romania, Portugal, Germany and Spain. It aims at establishing a sustainable “Knowledge Platform” for the use of stakeholders, including flood risk management and civil protection authorities, the research community, academia, and the private sector, dealing with the cost-benefit analysis of flood prevention measures in the context of different socio-economic environments within the EU;

• The “Baltic everyday accidents, disaster Prevention and Resilience” project (BaltPrevResilience), which aims to prevent and reduce the consequences of everyday accidents and disasters or crises. In the Baltic Sea Region and the EU, there are too many injuries and fatalities as a result of everyday accidents. A key element of accident prevention is to improve learning from accidents and disasters that happened in the past.

On an international level, the EU is encouraging the post-2015 United Nations framework for Disaster Risk Reduction to promote a “more systematic and reinforced science-policy interface” to strengthen the contribution of disaster risk management to smart, sustainable and inclusive growth.

**Cohesion policy**

Disaster risk prevention and management considerations have been included in a number of key EU policies, among them cohesion policy. Regional policy is the most important EU financial support to investment into the prevention of disasters. Through regional policy the EU makes significant financial assistance available to EU
Member States, their regions and cities (In 2014-2020 Cohesion Policy will invest €351 billion in EU cities and regions). In the 2007-2013 financial period about 6.5 billion EUR were made available to EU Member States for investment in risk prevention measures. For the new 2014-2020 financial period estimates show that more than 7 billion EUR have been invested in risk prevention and management and adaptation to climate change (under Thematic Objective 5).

A general requirement to address “disaster resilience, risk prevention and management” in all regional programmes is set out in an overarching Article on Sustainable Development. Risk prevention and management are included alongside climate adaptation as one of the thematic priorities for investment. A second area where disaster management is addressed is through various ex-ante conditionalities that need to be met before funding can be allocated for specific priorities. For disaster prevention and climate adaptation measures, the condition will be that the programming documents should be supported by risk assessments (at national or regional level) identifying the priority areas for investment these can be national or regional assessments and should take climate adaptation into account.

For instance, flood prevention is receiving the bulk of available funding of regional policy for risk prevention. Projects relate for instance to maintaining or redeveloping flood plains such as along the Tisza river in Hungary, cross-border and transnational cooperation on flood prevention, the deployment of early warning systems and needed ICT infrastructure as well as support to civil protection. Through regional policy the EU also provides particular support to the international dimension of flood prevention and management. It is for instance a key objective within the macro-regional EU Strategy for the Danube region and is also integrated in many Interreg programmes, where relevant.

Cohesion policy is often a new policy for many Civil Protection authorities in EU Member States and they may be unfamiliar with the programming and implementation processes. Furthermore as the disaster management priority is together with climate adaptation in some cases the preparations and negotiations may be left to environment authorities in the EU Member States. It is therefore important to emphasise the importance of fully involving Civil Protection authorities and that support can also be provided for response and preparedness investments such as modules.

It is therefore vital to continue mainstreaming disaster resilience and risk management in all actions (for instance, making sure that all newly built or rehabilitated infrastructure can also face emerging risks) and across all components of the disaster management cycle.

Solidarity Fund

The revised EU Solidarity Fund Regulation entered into force on 28 June 2014 and simplifies the existing rules so that aid can be paid out more rapidly than before. Some prevention considerations are included in the legal act in order to make the Fund more effective to encourage prevention action that can reduce future damage, notably through:

- Possibility to reject an application or reduce amount of aid in case of repeated infringement of relevant EU law on disaster risk prevention and management as confirmed by the Court of Justice (and not based only on reasoned opinion from the Commission as originally proposed);

- Information on prevention and mitigation measures to be provided with implementation report (not with application as originally proposed);

- Encouragement of investments in prevention and resilience, including through more effective use of structural and investments funds and providing information for this as part of the implementation report.
European Neighbourhood Instrument (ENI)

ENI supports the European Neighbourhood Policy (ENP) and the implementation of the political initiatives in the 16 partner countries from the Eastern and Southern European Neighbourhoods.

It is worth over €15 billion for the period 2014-2020.

Support through ENI is programmed and given in three different ways:
- bilateral programmes covering support to one partner country;
- multi-country programmes which address challenges common to all or a number of partner countries, and regional and sub-regional cooperation between two or more partner countries;
- Cross-Border Cooperation programmes between Member States and partner countries taking place along their shared part of the external border of the EU (including Russia).

ENI supports disaster management initiatives mainly through the multi-national and cross-border cooperation programmes.

Instrument for Pre-Accession Assistance (IPA)

IPA is the means by which the EU supports reforms in the “enlargement countries” with financial and technical help. The IPA funds build up the capacities of the countries throughout the accession process, resulting in progressive, positive developments in the region.

Prepared in partnership with the beneficiaries, IPA II sets a new framework for providing pre-accession assistance for the period 2014-2020.

The most important novelty of IPA II is its strategic focus. Country Strategy Papers are the specific strategic planning documents made for each beneficiary for the 7-year period. These will provide for a stronger ownership by the beneficiaries through integrating their own reform and development agendas. A Multi-Country Strategy Paper will address priorities for regional cooperation or territorial cooperation.

Disaster management / civil protection as a sector requiring attention is sufficiently addressed in the Multi-Country Strategy Paper and to lesser extent in the Country Strategy Papers where the priorities are mainly in the areas of Public administration reform, Rule of law, Sustainable economy and Agriculture and rural development. Since 2009 IPA has been continuously supporting the “enlargement countries” with regional capacity building programmes for civil protection cooperation and disaster resilience. Substantial support from IPA is provided also for reconstruction and recovery after major disasters in the “enlargement countries” like the devastating floods in Serbia and Bosnia and Herzegovina in 2014.

Read more

Cohesion Fund

EU Solidarity Fund Regulation

European Neighbourhood Instrument
http://www.enpi-info.eu/ENI

Instrument for Pre-Accession Assistance
http://ec.europa.eu/enlargement/instruments/overview/index_en.htm
UN World Conference on Disaster Risk Reduction, Sendai

By: DG ECHO

Disaster risk has increased significantly and cost the EU alone around €100 billion during the last decade. On average, natural disasters cause the death of more than 100,000 people every year worldwide. Risk reduction, prevention and management policies are essential to reduce the impact of disasters thereby saving lives and underpinning economic development.

Ten years ago, as part of an international effort to emphasise the importance of the reduction of disaster risks and to allow communities to be better for when a disaster strikes, UN Member States signed a voluntary disaster risk reduction framework called the Hyogo Framework for Action. Ten years later, on 18 March 2015, the new international framework for disaster risk reduction, the Sendai Framework for Disaster Risk Reduction 2015-2030 – was agreed and signed by 187 UN Member States in Sendai, Japan.

The 15-year framework, which places Disaster Risk Reduction as a key element of sustainable development efforts, proposes 13 guiding principles and four priorities for action to be implemented at national and local level focussed on a better understanding of risk, strengthened disaster risk governance, more investment for disaster risk reduction, more effective disaster preparedness and embedding the “build back better” principle into recovery, rehabilitation and reconstruction.

In contrast to the Hyogo Framework for Action, the new framework outlines seven global “qualitative” targets to be achieved over the next 15 years: a substantial reduction in global disaster...
mortality; a substantial reduction in numbers of affected people; a reduction in economic losses in relation to global GDP; substantial reduction in disaster damage to critical infrastructure and disruption of basic services, including health and education facilities; an increase in the number of countries with national and local disaster risk reduction strategies by 2020; enhanced international cooperation; and increased access to multi-hazard early warning systems and disaster risk information and assessments.

The EU has since the beginning taken a leading role in building a robust, ambitious and enhanced framework, which fits very well with the EU approach to disaster risk management found in EU legislation. Several elements of the EU position, outlined in an earlier Commission Communication and Council Conclusions, were secured in the new framework: a strong focus on implementation, strong incentives to carry out data collection and risk assessment, improved integration of health issues, a support to interface between policy and science for decision-making, a strong statement on coherence with the climate change (COP 21) and Sustainable Development Goals processes, a call for mainstreaming in different policies including assistance programmes and a stronger focus on the most vulnerable. The role of a wide range of stakeholders – including the private sector, local authorities, parliamentarians, etc. – and the importance of local and community-based resilience building are emphasised in the new framework. Two action-oriented targets that the EU had fought hard for are also reflected in the framework: substantial increase in the number of countries with national and local disaster risk reduction strategies by 2020; and substantial increase in the availability and access to multi-hazard early warning systems.

The Sendai Framework for Disaster Risk Reduction will have an impact on forthcoming events such as the World Humanitarian Summit in 2016 and will be vital to the achievement of future agreements on sustainable development goals and climate later in 2015. These events will also be a new opportunity to emphasise the linkages between disaster risk management and sustainable development. The Commission and its Member States will remain very much involved in the follow-up to the conference both at UN level and in assessing the priorities for action, the targets and their implications for EU and national policies.
EU Council Presidency Priorities

The Latvian Presidency of the Council of the EU

By: DG ECHO, Presidency

The Latvian Presidency of the Council of the EU during the first half of 2015 in the field of civil protection cooperation focuses on persons with disabilities in disaster management. In light of an increasing number of disasters both within and outside the EU, it is vital to understand and integrate the needs of persons with disabilities in the disaster management cycle and to promote practical improvements. A great deal of good practice exists in this area but it has not been disseminated and implemented effectively. Following a dedicated Presidency workshop, the Council has developed and adopted conclusions on disability-inclusive disaster management.

These Council conclusions fed directly into the work of the Third UN World Conference on Disaster Risk Reduction held in Sendai, Japan. DRR is the second Presidency priority, where it aims to inform the Member States about the new International Strategy for Disaster Reduction (DRR Strategy).

The Luxemburgish Presidency of the Council of the EU

By: DG ECHO, Presidency

The Luxemburgish Presidency of the Council of the EU during the second half of 2015 will focus on strengthening cooperation between civil protection and humanitarian aid authorities. Building on the work started during the Italian Presidency, in particular the Council conclusions on cooperation between humanitarian aid and civil protection authorities: building a new partnership for disaster management, the Presidency is planning a Joint thematic workshop for civil protection and humanitarian aid experts on “Coordination and cooperation between civil protection and humanitarian actors in the aftermath of natural and man-made disasters”, which will take place in Luxembourg on 15 to 16 July 2015.

Another priority of the Luxemburgish Presidency will be civil protection cooperation with the EU Neighbourhood countries. Building on discussions in the 2015 European Civil Protection Forum on the UCPM and associated partnerships, the Presidency will bring the issue for discussion at the civil protection (PROCIV) working party in of the Council of the EU, possibly leading to Council conclusions on the subject matter.

Read more

EU Council conclusions on disability-inclusive disaster management

EU Council conclusions on cooperation between humanitarian aid and civil protection authorities: building a new partnership for disaster management
Notes
Notes
Helping People in Disasters

European countries join forces under the EU Civil Protection Mechanism to prevent, prepare for and respond to disasters. Coordinated actions bring fast and effective assistance to those in need.

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