

# SECURITY CROSS-FERTILISATION PROJECTS RESEARCH

## A Community of Users Initiative Supportive Report

This report produced was compiled by Tom Flynn and Stephen Purcell on behalf of and in collaboration with the projects participating at the cross fertilisation workshop event.

March 2<sup>nd</sup> 2015 (v1.0)

This report was produced for the attention of Philippe Quevauviller (DG-HOME) of the European Commission. It aims to provide deemed valued initial feedback with respect to the Community of Users initiative. It presents a collective view based the outcomes of the security cross fertilisation projects workshop.

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**Note:**

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## Executive Summary

This Community of Users assessment report provides a collective view and an appraisal of the Community of Users initiative and is the result of a workshop event, which was held between respective projects active in the security research domain of the Seventh Framework Programme. The transition from the Seventh Framework Programme to Horizon 2020 provides an opportunity to ensure that “policy impact” is more closely scrutinised, such that research direction is aligned appropriately. A common taxonomy and discourse in disaster risk and crisis management must be developed and applied in a within reason uniform and interoperable manner. A case in point are many of the current Horizon 2020 Calls applying entirely differing interpretations of terminology, be it ‘disaster’ or indeed ‘critical infrastructure’, etc. If Horizon 2020 or similar are seen as building blocks towards for “improving future links”, then the fundamentals must be a cornerstone in laying the foundations for future governing rules and optimal alignment. A clear message from the workshop event worth noting is that the Community of Users initiative is most welcomed and unquestionably it must not disappear in a few years from now.

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## 1. INTRODUCTION

On the 23<sup>rd</sup> January 2015, a virtual workshop was held between seven security European research related projects to discuss and exchange views, knowledge and understanding of the Community of Users initiative, which itself was launched in Brussels on the 24<sup>th</sup> and 25<sup>th</sup> of November 2014. Considered as a cross fertilisation workshop between the invited security research projects, the workshop focused on 3 key areas – Standardisation, CBRN-e and Crisis Management. It is in this light and against the backdrop of the Community of Users initiative that the report is produced. The participating projects were EDEN, CRISP, EPISECC, S-HELP, COBACORE, DESTRIERO and SECTOR.

The Community of Users initiative is understood to be a mechanism by which better coordination of information exchanges of a general nature can be achieved and fragmented approaches are avoided. The initiative has a strong association with two demonstration research projects: EDEN for CBRN-e and DRIVER for Crisis Management. Along with other European projects funded under the Seventh Framework Programme, both the EDEN and DRIVER projects are positioned to enhance and strengthen Community of Users in Disaster Risk and Crisis Management areas from defence to the security sector and to the safety sector (i.e. food, medical, industrial risks as well as natural hazards). With these two projects in place, the Community of Users (CoU) initiative is deemed to have an ever more important role in establishing links among different actors in the field dealing with disaster, risk and crisis management.

### 1.1 Methodological approach for the CoU assessment workshop

The concept of holding a virtual workshop was discussed at the launch of the Community of Users event in Brussels, November 2014. Participating at the initiation were Tom Flynn (SECTOR and DESTRIERO projects), Michael Löscher (EDEN project) and Ms. Jolien van Zetten (CRISP project). Common links and areas of interest were established between these projects. The areas of Standardisation, CBRNe and Crisis Management were deemed as the most appropriate areas for initial discussions at the cross fertilisation workshop. It was against this background that a draft agenda and the initial questions for the workshop was formulated to kick start the workshop. In tandem, both Michael and Tom sought the additional participation of other projects that could contribute to the focused discussions of Standardisation, CBRNe and Crisis Management. Projects, EPISECC, COBACORE and S-HELP accepted the invitation of the workshop. The agenda was later ratified and the TeamViewer virtual workshop, hosted by Future Analytics Consulting, began.

Date:	23 <sup>rd</sup> January 2015. 15:15 – 17:15 (GMT)
Chair:	Tom Flynn (SECTOR & DESTRIERO)
Agenda:	Welcome and aim of workshop (Tom)
	Introductions and participant backgrounds (All)

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	Open discussion on the CoU document for the focused areas with leading questions (All)
	<p>Leading questions:</p> <ol style="list-style-type: none"> <li>1. Is the CoU a good initiative?</li> <li>2. Is the CoU document targeted at the right audience?</li> <li>3. What direction or alternative approach should the Commission take regarding a) CBRNe, b) crisis management and c) standardisation . . . . . and of course why?</li> </ol>
	Assessment, Conclusions, next steps and <end>.

Stephen Purcell from the COBACORE and S-HELP projects, and Georg Neubauer from the EPISECC project actively participated in the workshop. Driven by the chair, following an overview of the CoU initiative and participant introductions, the discussions on the CoU initiative in the areas of Standardisation, CBRNe and Crisis Management were openly addressed. Opinions and views were openly conveyed. These views and opinions were noted and consensus on the points raised were acknowledged and recorded by Stephen and Jolien. Collectively, these notes formed the core basis of this report. The Conclusion session was used to reiterate the main points. Asked if this type of workshop was worth having again, the reaction was positive although its limitations were acknowledged. The joint cross fertilisation project workshop report was compiled with reviews and inputs from all participants. On the 2<sup>nd</sup> of March 2015, the report was forwarded to Philippe Quevauviller (DG-HOME).

The workshop concluded after 2 hours of discussions driven by the chair. Sections 5 provide details and backgrounds of the participants and their active projects.

## 1.2 Scope and Limitations

The cross fertilisation workshop event has obvious limitations that deserve no written explanation but an example would be the duration of event itself was limited to two hours. The workshop event had a narrow focus on three areas Standardisation, CBRNe and Crisis Management under the remit of the aims of the of the Community of Users initiative. Participants have a research background.

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## 2. Workshop Findings

### 2.1 *Is the CoU a good initiative?*

The Community of Users initiative is most welcomed. It is a good initiative and should evolve for the wider good of the European community at large and for Europe's resilience to a security threat or a crisis. Presently, the initiative is considered to have a very broad target audience. The direction it takes going forward must enable science and research to have a profound positive impact on European security and resilience. The CoU initiative is a sizeable undertaking but absolutely necessary. It is unknown at present what direction the CoU initiative will take and in 5 years what it will have achieved, but it is unquestionably needed.

Initial discussions lead to where the benefits of the CoU initiative would lead and ultimately the end users. Questions raised in the context of the CoU were: Who are the End Users? Who are the Consumers? Where do clear definitions lie? What problems do the end users face in doing their jobs? Users need a forum where they can express their needs and requirements and exchange with each other to overcome common issues and improve interoperability and standardisation. More end user engagement with round table discussions will inform where research efforts should be directed. Reinsurance/insurance organisations would know the monetary costs of a crisis, etc and should be an integral part of the round table discussions. In this light too, the citizen needs representation with future directions. Presently, it is unclear how well the CoU initiative addresses the needs of the citizen. Society is worryingly being confronted with various kinds of security threats, including terrorism, organised crime, natural disasters and major technical accidents.

Perhaps, the CoU initiative could take two parallel and interconnecting streams, whereby one stream is targeted at the End Users (i.e. a Community of Users/Customers) and the other stream is targeted at the Community of Industry/Researchers. This is certainly something that is worth considering.

The provision of definitions via a European vocabulary standard would act as a fundamental basis for a common understanding from both the Consumer/Customer and the Industry/Research perspectives. Standard definitions for different entities relevant to the variety of stages of the resilience cycle would also be important (e.g. Preparedness vs Response) in the context of vocabulary definitions.

Interoperability and cross border procedures and responsibilities are deemed highly critical for future research solutions. Across Europe, bordering countries must improve inter-operations. Research cannot be confined to technology solutions that nobody really can use in the field; it requires interoperable solutions that span operations, legal, standardisation and political contributions and ultimately must meet end user expectation in full or advanced prototype format. In this view, it was agreed that current problems of end users need to be solved more and more by strong industry involvement. Therefore, industry needs to be put in a position in which it is able to solve the problems of the end users. If the "Community of Users" includes an actual "Community of Customers", it should be managed in such a way taking this perspective into account. Industry view and understanding must play a role and have a voice in this community. But research and industry need much support too. At the end, users can be

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best assisted if support is available also within the research and industry fields, so that they are better equipped to answer directly to the requests of their customers, and provide innovative, efficient and effective support to the users. This is especially true for prevention and preparedness; the strong involvement of industry is crucial.

The current scope of the EU Community of Users, which mainly targets policy makers, is highly important for the future policy settlement and development, but it should be enlarged to encompass end users/final customers and include objectives on EU competitiveness and market development.

One thing that is clear from all of the discussions in the workshop is that good communications is of paramount importance for the initiative in whatever shape or form it takes going forward and must be filter out correctly to the relevant targeted audiences.

## **2.2 *Is the CoU document targeted at the right people?***

During the workshop discussions, which were ‘open by design’ it allowed for participant conversation to flow. Question 2.2 (‘is the CoU document targeted at the right people?’) was overlaid with question 2.1 on several occasions and to the extent that there is little value in readdressing this question, except to mention that it was agreed that the next stage of the CoU initiative is crucial. It was also clear that in order for the CoU to be successful, it needs to capture the imagination of the CoU skeptics. In this light it is seen as a necessity that the CoU initiative in whatever form or shape it may take does not disappear in 5 years from now. Roadmaps, action plans, etc., are foreseen as part of the undertaking, but beneath all of this is a fundamental question – are we (‘Europe’) good enough for the next security threat or crisis? What the CoU initiative does is to provide a means for challenging ourselves with answering that question on an ongoing basis regardless of policy and position in all spheres of work, from research to on the job/operational elements along the resilience cycle.

The structure and focus of the next version of the CoU document is crucial. This assumes that there will only be one document. The next edition needs to incorporate an easy to read overview. The mandate of the Commission should also be incorporated to the document. Targeted readers from different perspectives (e.g. citizen, end users - 1<sup>st</sup> responders, research, industry and scientific) should ideally be directed to different sections of the document. The drafting of the document should be given limited released and well in advance of the general wide spread release for construction feedback and recommendations. This would strengthen the process resulting in a more amiable document being released.

On page 15, five main categories of users are considered. At the end of “a. Policy-makers and stakeholders”, we see reference to consultancy companies, which demonstrates the connectivity between “a” and indeed “c. Industry (including SMEs)”. We must show the value and role of “e. General Public” throughout the Community of Users initiative. These are the people who ultimately benefit from enhanced capacity building, and who “feel” the positive impact of greater response/recovery efforts. Perhaps there is an opportunity to seek to empower the public/citizens (both the “affected community”



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and the “responding community”, if the latter comprises those neighbouring communities with the capacity to assist/volunteer to help their neighbouring affected community). “Community champions” must be encouraged and facilitated in the Community of Users to leverage and bridge existing gaps, and this required meaningful engagement by the other categories of user defined on page 15.

Page 16 includes a useful visual “Community of Users”. It is respectfully submitted that the public/citizens are not adequately included here. Indeed, representative bodies or individuals must not be ‘restricted’ from bringing forward localised innovation and creativity, as part of meaningful engagement.

We believe that future Horizon 2020 research could, in part, be specifically focused in some Calls on policy betterment – too often there is a disparate approach (“silo mentality”) adopted. The “Science to Science” relationship must be enhanced, and indeed the opportunity to more strictly ensure that “sister projects” from related Calls are specifically aligned (i.e. perhaps by M18 of a M36 month project).

### ***2.3 What direction or alternative approach should the Commission take regarding a) CBRNe, b) crisis management and c) standardisation?***

Interoperability was the initial focus of the discussion. It is part of everything and vital for each of the three headings above – CBRNe, crisis management and standardisation. The levels of interoperability were explained and highlighted as follows:

- Political Context: Cooperating partners having compatible visions and focus on the same things.
- Legal Interoperability Context: The appropriate synchronisation of the legislation in the cooperating Member State (MS) so that electronic data originating in any given MS is accorded proper legal weight and recognition wherever it needs to be used in other member states.
- Organisational Interoperability Context: The processes by which different frontline organisations collaborate to achieve their mutually beneficial and mutually agreed cross border shared data related goals.
- Semantic Interoperability Context: Ensuring that the precise meaning of exchanged information (i.e. terminology, concept, organisation, services, etc.) is defined, preserved and well-understood.
- Technical Interoperability Context: The technical issues involved in linking computer systems and services (open interfaces, interconnection services, data integration, middleware, data presentation and exchange, accessibility and security services ...) supporting the framework and allowing member states to interface with and exchange.

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**a) CBRNe:**

The EDEN demonstration project [1] is end user driven. Results and project findings should be used to act as an input to the direction of future scientific research. EDEN is one of a number of research projects (e.g. DESTRIERO, PRACTICE, CATO) in the area of CBRNe. Collectively, the results of projects in this area should be used as an input to support the Commission. It is becoming more evident as the EDEN project progresses that the potential end users are not aware of the available technologies that are already existing or being already used by end user organisations in different member states. There may be technologies in an SME portfolio that some end users are not aware of or are under development. So visibility is an issue. EDEN brings together end users on a voluntary basis and more commonly they do not have the time to implement extensive research documents. What is worth considering is to make available an EDEN-stores (or similar) whereby based on the stores content, new requirements for the market, driven by the end users, can be directed to the scientific and research community. Within the EDEN project, end users have a strong voice. The project can provide the Commission with justified inputs as to where future scientific and research efforts should be directed. The knowledge base and experience of end users is at hand and can be acquired for use in a manner that strengthens the Commissions ability to address, through science research and innovation, areas or known market gaps, that will have a bearing on Europe's resilience to a threat or a crisis. The filtering process of capturing end user knowledge in existing and future projects should be addressed in the short term.

**b) Crisis Management:**

The main point come from the discussion on Crisis Management dovetails the points that have previously been addressed. That is – the importance of Interoperability from semantic through to a political context. A large scale flood has no respect to borders. It flows over the borders. Legislation and operational treatment will vary from country to country but the problem ('flood') is one. The resolution should be tackled as one. Interoperability, as previously outlined, is the focal enabler across the full context listed above. EPISECC and SECTOR, as well as other projects, demonstrate that in crisis management the use of a common taxonomy is imperative for successful co-operation of stakeholders operating on strategic, tactical or operative levels. Identification and detailed, quantifiable analysis of end user requirement are pre-requirements before to design new crisis management concepts. Such analysis should follow standardised processes in order to make comparisons of outcomes possible.

**c) Standardisation:**

European standardisation activities support the dissemination of knowledge about new technologies and innovations, and in theory can help to bridge the gap between research, innovation and the market. Currently, most European standards are developed in response to specific needs that have been identified by business, industry and other potential users of standards. About 30 per cent of European Standards reply to European Policy initiatives upon requests from the European Commission. In the predecessor programme to Horizon 2020, most research projects try to adopt standardisation as part of their undertaking and in different ways. The connections between the Commission and CEN/CENELEC

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are clearly in evidence, yet there is an underlining concern that standards delivered for the sake of standards, have little value in the real world. Somehow the bridge between the development of standards and the identification of required standards needs to be assessed / reassessed in terms of perceived value to the real and the end user community. The CEN STAIR approach [2] initiative is worth investigating further. Currently standards work that is being undertaken as part of NATO projects is being linked and filtered through a dedicated process that feeds into the appropriate technical committees. The BRIDGIT project [3], which involved CEN/CENELEC, might be deemed appropriate for use as a starting point to re-examine how the results of European research projects in the context of standardisation could be more beneficial to the community.

Page 18 features a visual “Examples of links among policies and operational features”. It would appear that the domain of “protection/recovery” is utterly lacking. Indeed, one of the emerging findings of the FP7 project COBACORE is the heavy focus, by stakeholders during evaluation sessions, on the immediate response phase, and less of a focus on the recovery and longer term rehabilitation of communities phase. Furthermore, the FP7/Horizon 2020 domain appears somewhat disconnected from the other strands.

One of the projects from the comprehensive listing in the draft document, CRESCENDO, would appear from its short description to be of potential value to investigate further as part of the Community of Users initiative. With a title to “Create real EU security market & strengthen EU competitiveness by closing the loop between academia, industry...”, it may align positively with the idea of a Community of Customers, etc.

In terms of the “Way Ahead”, it is encouraging that the medium-term aspiration is with a view to establishing a strategic roadmap for Horizon 2020 in closer cooperation with the research Policy DGs. Again, collectively we would encourage that meaningful community engagement and public consultation is promoted within this process.

The reference to an “Annual Commission’s Inter-service compendium on security science and policy” is very much welcomed, and indeed there could be scope that this could become the start of an effort to create “CORDIS 2020” where a more involved and interactive linking and showcasing of projects could be enabled.

We must keep clear that policy development and their ultimate implementation is very different tasks, and that such tasks involve different users and stakeholders. Accordingly, both tasks must get the right input at the right stage in development/roll-out.

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### 3. Conclusions

The Community of Users initiative is a welcomed initiative and is a necessity going forward. It must not be derailed. It may take a different form in the future i.e. possibly a Community of Users/Customers and separately a Community of Industry/Researchers. The initiative is a sizeable undertaking. Presently, the target audience is broad. Given that it is unclear what direction the initiative will take, the next version of the CoU document (assuming only one document) is deemed as crucial for success. Clear overview and mandate are seen as vital ingredient for the document. Roadmaps, action plans etc. are foreseen.

The initiative should encourage greater engagement with end users. The needs and requirements of end users are essential to inform the development of the CoU. A forum for end users would be necessary, given that we have a clear definition of the end users and consumers. Insurance/Reinsurance and citizen representatives should be part of the all-inclusive end user forum. It was agreed that industry involvement is required to help provide solutions for problems experienced by end users today. In general terms, the EDEN projects has highlighted that end users of today are not aware of many technologies that are already available or under development.

The provision of definitions to form part of a European vocabulary standard would be a prerequisite for all work going forward. There should be no confusion or misunderstanding attributed to vocabulary when in the midst of managing a crisis, especially a cross-border incident. Interoperability and greater cross border interagency cooperation is deemed as highly critical for future research requirements. Interoperability must be applicable to all levels from a political context through to operation and technical context. It will impact every aspect of scientific research especially the end results in the field. It is most relevant to CBRNe, Crisis Management and Standardisation and is a focal ingredient for all future research results. The bridge between the development of standards and the identification of required standards must also be assessed / reassessed in terms of perceived value to the real and the end user community. The CEN STAIR approach and initiative is worth investigating further.

Collectively, the results of projects particularly in the areas of CBRNe and Crisis Management should be used as input to support the Commission and the future direction of security science and research.

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## 4. Participant and Contributor Backgrounds

The following table provides a snapshot overview on the participating projects and the representatives from the project. Curriculum details on the participants are also presented in this Section.

Project Acronym:		Web Site	Mnemonics	Participant
1.	COBACORE	<a href="http://www.cobacore.eu/">http://www.cobacore.eu/</a>	Community-based comprehensive recovery from disaster using central coordination/ disaster management platform.	Stephen: <a href="mailto:stephen.purcell@futureanalytics.ie">stephen.purcell@futureanalytics.ie</a>
2.	CRISP	<a href="http://crispproject.eu/">http://crispproject.eu/</a>	Standard / methodology, security product certification.	Jolien: <a href="mailto:Jolien.vanzetten@nen.nl">Jolien.vanzetten@nen.nl</a>
3.	DESTRIERO	<a href="http://www.destriero-fp7.eu/">http://www.destriero-fp7.eu/</a>	Disaster reconstruction, Recovery planning.	Tom: (representing Saadian) <a href="mailto:t.flynn@tomflynnconsultants.com">t.flynn@tomflynnconsultants.com</a>
4.	EDEN	<a href="https://www.eden-security-fp7.eu/">https://www.eden-security-fp7.eu/</a>	CBRN, End User Driven, Demonstration, standards	Michael: <a href="mailto:michael.loescher@eu-vri.eu">michael.loescher@eu-vri.eu</a>
5.	EPISECC	<a href="https://www.episecc.eu/node/8">https://www.episecc.eu/node/8</a>	Past events disaster / Emergency / Crisis management - 1st responders.	Georg: <a href="mailto:Georg.Neubauer@ait.ac.at">Georg.Neubauer@ait.ac.at</a>
6.	SECTOR	<a href="http://www.fp7-sector.eu/">http://www.fp7-sector.eu/</a>	Collaborative crisis management, Interoperability, past event learning.	Tom: (representing Saadian) <a href="mailto:t.flynn@tomflynnconsultants.com">t.flynn@tomflynnconsultants.com</a>
7.	S-HELP	<a href="http://www.fp7-shelp.eu/">http://www.fp7-shelp.eu/</a>	Decision support for major health emergency incidents	Stephen: <a href="mailto:stephen.purcell@futureanalytics.ie">stephen.purcell@futureanalytics.ie</a>

Project details can be obtained in Section 5 (Participant Projects).

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Contributors to the report and participating at the event include Jolien, Michael and Georg:



**Ms. Jolien van Zetten** is a standardisation consultant at NEN, the Netherlands Standardization Institute. She holds a BSc in European studies from The Hague University of Applied Sciences and an Associate Master in Project Management. Jolien van Zetten is working for NEN for over 10 years now, and has been involved in standardisation activities on a national, European and worldwide level. Her involvement in security standardisation started 1.5 years ago, during the execution of M/487. She is responsible for the national security standardisation activities in the Netherlands and holds the secretariat of CEN/TC 391 Societal security and citizen protection, CEN/TC 391 WG 2 CBRNE and ISO/TC 223 WG 4 Business Continuity Management and Resilience. Furthermore, Jolien is the project manager for the FP7 project CRISP, aiming at facilitating European certification of security products, systems and services.



**Michael LÖSCHER** graduated in 2008 as Magister Artium in Social Science (Sociology and Politics) at the University of Stuttgart. His main interests and competences are related to technical and societal risks of New Technologies and Risk Governance approaches for improving (emerging) risk management. In addition, he is committed to strategies and concepts for the integration of safety and security. He currently works at the European Virtual Institute for Integrated Risk Management as Senior Project Manager and is member of the Institute's Executive Board.

Michael managed and participated in various national and European research projects. For the EU FP7 project iNTeg-Risk, with a duration of 4.5 years, a total budget of approx. 20 million Euro and the involvement of more than 80 companies (many of those EU-VRi members), he was part of the coordination team that contributed to the “success story” of the project. This was acknowledged by the European Commission in the final assessment report that highlighted the management of the project as “outstandingly effective and efficient”.

From 2011 to 2014 he was part of the research team coordinating a national project on security of drug supply chains titled “SafeMed”, which was evaluated by Germany’s Federal Office of Civil Protection and Disaster Assistance as a research project providing tangible and relevant results for practicable applications.

Currently, Michael is part of the Management Board of the FP7 large scale demonstration project EDEN that is considered by the European Commission as the main reference project on CBRNe threats. Michael is coordinating the project’s Supplier Platform that is reaching out for innovative solutions throughout the CBRNe security cycle and he was appointed as the Liaison Officer in charge of standardisation aspects on behalf of the consortium.



**Georg Neubauer** received his MS in Electrical Engineering from the Technical University of Vienna and his PhD from the Technical University Graz. From 2002 to 2010 he was lecturer at the Technical University Graz, since 2004 lecturer at the Technical University of Vienna. He is Project Manager at the Austrian Institute of Technology and has more than 20 years' experience in safety and security research. Currently he is coordinating the FP7 project EPISECC among others. From 1999 to 2008 he was deputy business unit manager of the Mobile Communications Safety Section in 2003 he became Principal Scientist at Seibersdorf research. In 2009 he was within the Seibersdorf Laboratories GmbH, in 2010 he joined the Austrian Institute of Technology GmbH and works since then as senior scientist as well as project manager in the department of Digital Safety & Security.

His current main fields of activity are interoperability in crisis and disaster management (e.g. design of common information spaces, analysis of stakeholder requirements, design of analytic inventories), ICT solutions for volunteer enablement in crisis and disaster management (e.g. crowd tasking and crowd sourcing) as well as Intended Electromagnetic Interference (IEMI) (e.g. protection of critical infrastructures against electromagnetic threats, safety of humans exposed to IEMI).

Georg is member of the advisory board for mobile communication and health of the Austrian Federal Ministry for Transport, Innovation and Technology as well as from the Working Group EMF of the Austrian Ministry of Health. He was a member of the council of the European Bioelectromagnetics Association and is member of both EBEA the Bioelectromagnetics Society. Moreover, he was member of the working group of SCENIHR (Scientific Committee on Emerging and Newly Identified Health Risks) of DG SANCO. He was chairing the Working Group 1 of the COST Action BM0704 Emerging EMF Technologies and Health Risk Management. He served as advisor for several national and international institutions including the WHO.

Georg is involved in national and international standardisation work, e.g. CEN, CENELEC and IEC. He is author or co – author of more than 100 articles in scientific journals and serves as reviewer of several SCI listed journals.

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## 5. Participant Projects

### 5.1 COBACORE (Grant Agreement no. 313308)

COBACORE is a collaborative research project funded by the European Commission involving Dutch, UK, German, Irish, Spanish and Slovakian partners. COBACORE seeks to **close the collaboration gaps between stakeholders involved in post-crisis recovery**. COBACORE also aims to **improve the matching of needs with capacities**, through building upon the community as an important source of information and capabilities. The **COBACORE suite of tools**, which are designed to complement existing practices and tools, **will support common needs assessments efforts, damage recovery needs, economic needs, health and social needs, and other critical humanitarian needs**. The COBACORE assets will stimulate community-wide involvement in information gathering, sense-making, and needs assessment practices.

COBACORE (Community Based Comprehensive Recovery) seeks to address the complex and increasing challenges facing needs assessment and recovery planning today:

- A lack of coordination and collaboration among organisations;
- The need for more effective common needs assessment;
- Sizeable information gaps in assessing the scale and severity of a disaster;
- Delayed utilisation of primary information sources (communities) for post-impact information collection;
- Lack of community awareness and involvement, situation awareness, needs awareness or management.

The COBACORE project is leading the development of an innovative approach for community based comprehensive recovery. Importantly, civilians, private and public organisations will be specifically considered within a **community-based approach**. The COBACORE project is building new tools that support local communities in their needs assessments and recovery planning during post-disaster recovery.

It **represents a vision on how next-generation disaster recovery will be conducted**. COBACORE (<http://cobacore.eu/>) seeks to provide a central communication platform to enable the affected, responding and professional disaster-impacted communities to collaborate, match their needs and capacities, and to also provide a detailed spatial and situational overview of current activities. In this way, COBACORE acts as a central conduit for all disaster management activity, and provides end-users with an up-to-date overview of the dynamics of the disaster response in their locality, facilitating evidence-based action and resource allocation.

COBACORE is grounded in a holistic, community-based approach to needs assessment and recovery planning. COBACORE will deliver an integrated and interactive workspace platform, a collaborative environment where a complete-picture of the post-crisis situation can be generated. The dynamic nature of our natural and physical environment, together with the increasing frequency and intensity of



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disasters and emergencies, requires a quicker yet more robust needs assessment. **The COBACORE platform will provide the solution**, and will offer **different interfaces for different stakeholders** in this complex environment.

## **5.2 CRISP (Grant Agreement no. 607941)**

The market for security products, systems and services is one of fastest growing markets internationally and in the EU. The European security industry has a leading role in the global security market. However, growing international competition and market changes indicate that the market share of European companies could greatly decrease in next few years if no action is taken. Certification of security products, systems and services is of great help in maintaining the leading role of the European security industry. CRISP aims at facilitating a harmonized playing field for European security industry by developing a robust methodology for security product certification. CRISP will enhance existing security evaluation and certification schemes by offering an innovative evaluation methodology that integrates the security, trust, efficiency and freedom infringement assessment dimensions. The proposed scheme will be based on a taxonomy encompassing a variety of security products, systems and services across applications, will take into account the varying roles of a divers stakeholder community including manufacturers, regulatory and certification bodies, data protection authorities and end users and engage with each group to gather insights to help avoid acceptance problems that challenge current schemes.

CRISP's key output will be an EU Security Certification Manual, which will leverage the information gleaned from the analysis of existing certification schemes in. This certification manual will specify standards and requirements for certification and accreditation of security products. The manual will be targeted at certification and accreditation bodies and inter alia, set out their roles and responsibilities.

## **5.3 DESTRIERO (Grant Agreement no. 312721)**

Nowadays, natural disaster such as earthquakes, wind storm, floods, or man-made disaster or even terrorist attacks have a major impact on the living conditions, economic and environmental status of affected countries or regions. Besides dramatic **structural damages** also **CBRN contamination risks** can occur as a consequence of these events (e.g. Fukushima accident) leading to both economic and humanitarian tragedies. Ever wider geographic areas are affected, sometimes crossing national borders, while **reconstruction and recovery operations are increasingly longer-lasting, costly and complex**, especially when decontamination is necessary.

In such situations emergency management, but also **Post-Crisis Damage and Needs Assessment (PDNA)** and **Reconstruction and Recovery Planning (RRP)**, is usually coordinated by local authorities or dedicated civil protection organisations, with the support of a variety of different national and international relief organisations **acting relatively autonomously**. The damage assessment needs analysis, recovery, and reconstruction planning process is typically coordinated through periodic **physical meetings** of the involved organisations, in which information is shared about the situation,

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priorities set and responsibilities allocated. Follow-up and execution of tasks is managed by each individual relief organisation, supported by a range of more or less proprietary not interoperable tools. No advanced software platform or tools are available to support this process as a *joint operation* in which information is continuously updated and shared between the organisations, progress monitored and accountability facilitated. DESTRIERO will develop an advanced net-centric information management tool, which structures and presents information to collaborative groups of (international) stakeholder organisations and supports damage and needs assessment as well as recovery planning. Twitter: [@destriero\\_fp7](https://twitter.com/destriero_fp7)  
Participate in survey: <http://www.destriero-fp7.eu/survey/>

#### **5.4 EDEN (Grant Agreement no. 313037)**

The 1<sup>st</sup> of September 2013 marked the start of the 3-year European project EDEN, which is characterized by a highly innovative approach to develop CBRNE research activities in the EU, linking end-users, researchers and industrial experts. The focal points of the project are three large-scale Demonstration actions scheduled at the end of the research activities to validate the solutions sought in EDEN project climaxing in the EDEN (Trade) Fair in Brussels at the end of the project. The project demonstration outputs will aim to allow capabilities to be shared among multi-national CBRNE stakeholders, which is paramount in cross-border incident management and over time will allow for a build-up of common capability across European boundaries. EDEN aims at:

- Shortening time to response (after an event occurs)
- Improving mass gathering/events security
- Enhancing the protection of sensitive or critical infrastructures
- Achieving a European lead in CBRNE sampling, detection, proficiency testing and forensics
- Boosting the EU CBRNE market
- Reinforcing technological, societal and psychological resilience of the EU society.

These aims are realized with the EDEN Toolbox of Toolboxes approach and will be checked and improved throughout the demonstrations.

#### **5.5 EPISECC (Grant Agreement no. 607078)**

The EPISECC's consortium structures its project around the following critical concepts:

- Based on analysis of the past major European emergencies and disasters identify main shortcomings of currently used data sets, the daily information management tools and processes and the integration into crisis management procedures and the information systems used by first responders and police authorities;
- Raise awareness of and advocate for the use of a modern information management and communication technologies by first responders and policy authorities;

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- Assist in development of the rapidly evolving European policy in the area of security, civil protection and humanitarian aid;
  - Reduce vulnerabilities and increase resilience of European societies against security risks, natural disasters and crisis.

EPISECC intends to improve information and cooperation processes in the future, the EPISECC project has therefore the following objectives:

1. Develop a pan-European inventory of past critical events/disasters and their consequences focusing on the performance of processes, the data exchange and the organisational boundaries.
2. Develop a concept of a common information space including appropriate semantic definitions by taxonomies and/or ontologies.
3. Analysis of existing concepts of interoperability from different domains as basis for the concept of a common information space, identification of new possible emergency and crisis management models.
4. Validation of the architecture and suggestion of new Emergency and Crisis Management Models.

## **5.6 SECTOR (Grant Agreement no. 607821)**

The management of a crisis is one of the great challenges of the 21<sup>st</sup> century. The ever growing human, economic and environmental losses due to natural and man-made disasters evidence the need for a systematic approach to the management of crisis. A multi-disciplinary understanding and disaster risk management is required. In such situations, Collaborative Crisis Management (CCM) is usually coordinated by local authorities or dedicated civil protection organisations, supported by a variety of different national and international crisis management organisations, all acting relatively autonomously. The process is typically coordinated through periodic physical meetings of the involved organisations, in which information is shared about the situation, priorities are set and responsibilities allocated. Follow-up and execution of tasks is managed by each individual organisation, typically supported by a range of not interoperable information management tools, depending on the level of information of the local or national crisis management systems.

SECTOR's main objectives is to support the expansion of European scientific knowledge base on cross-border multi-agency CCM process, and provide a Common Information Space aimed at implementing the concept of CCM information and knowledge resources and services sharing. The project aims at establishing the foundations of future Common CCM Information Spaces by expanding the European scientific knowledge base on (cross-border) multi agency CCM processes and the complications these imply when aiming at setting-up and design cross-border supporting information Systems.

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Twitter: [@SectorFP7](#)

Linkedin: [https://www.linkedin.com/groups/Sector-Project-Common-Information-Space-8178892?home=&gid=8178892&trk=my\\_groups-tile-grp](https://www.linkedin.com/groups/Sector-Project-Common-Information-Space-8178892?home=&gid=8178892&trk=my_groups-tile-grp).

### **5.7 S-HELP (Grant Agreement no. 607865)**

S-HELP: Securing Health Emergency Learning Planning – Development of Decision Support Tools for Improving Preparedness and Response of Health Services Involved in Emergency Situations

The central aim of the S-HELP project is to develop and deliver a holistic framed approach to healthcare preparedness, response and recovery. S-HELP is a people, process and technological solution to emergency situations. More precisely, it aims at:

- Defining an interoperability standard to enable communication and coordination across different geographical areas and cultural settings
- Facilitating a collaborative end user and supporting partner driven solution to meet the needs of different users from 4 countries in Europe and beyond.
- Defining and applying an interoperability standard for multiple agencies jointly responding to a disaster.
- Advancing the design and application of current available solutions, to improve preparedness, response and recovery in emergency situations.
- Delivering decision supporting tools for emergency preparedness, response and recovery, tested, evaluated and enhanced through quality, end user designed emergency scenarios.

S-HELP will use a seven-stage methodological framework consisting of one project management work package and six targeted work packages. Seamless inter-linkages with all work packages will guarantee the effective transfer, sharing and exchange of information during the whole project. This will ensure that the outputs of the various work packages are incorporated at appropriate stages throughout the lifetime of the project.

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## Some Acronyms

CATO:	CBRNe project: <a href="http://www.cato-project.eu/">http://www.cato-project.eu/</a> .
H2020:	The European Commission's Horizon 2020 Framework Programme.
FP7:	The European Commission's Seventh Framework Programme.
PDNA:	Post Disaster Needs Assessment is a government-led exercise with the support of the EU, the UN system and the World Bank, bringing together national and international stakeholders to align recovery efforts in a coordinated way.
PRACTICE:	CBRNe project: <a href="http://www.practice-fp7-security.eu/">http://www.practice-fp7-security.eu/</a> .
RRP:	Reconstruction and Recovery Planning.
WHO:	World Health Organization.

## References

- [1] EDEN is a demonstration project aimed to provide CBRNe resilience.
- [2] CEN STAIR: A CEN/CENELEC Group that prepares strategic advice to the two Technical Boards in order to reach an integrated approach between research, innovation and standardisation. <http://www.cencenelec.eu/research/ForMembers/Why/stair/Pages/default.aspx>
- [3] BRIDGIT is a project, aiming to bridge the gap between standardisation, research and innovation. <http://www.cencenelec.eu/research/BRIDGIT/Pages/default.aspx>

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## About the authors



**Tom Flynn** [@TomFlynnConsult](#) has over 25 years experience working across a number of sectors including Security, ICT, eHealth and Energy working in an engineering and consultancy capacity and is involved in research, operations and project management. Tom is well known for bringing to projects much lateral and fresh thinking to issues and approaches across sectors that he is involved in.

With a software engineering, business management and research acumen, Tom has worked in a number of European Commission and Irish national projects in the role as project manager, operations manager, quality manager as well as a senior researcher.

Prior to establishing Tom Flynn Consultants in 2012, a specialist research SME company, Tom founded and managed an SME software firm, Software Information Designs Limited, which provided network manager and IT administrators with a network environment control product.

Tom was the President of the 5<sup>th</sup> European Software Quality Conference and is heavily involved in national and international standardisation work, e.g. CEN, CENELEC, ISO and the National Standards Authority of Ireland (NSAI). He participated on the Advisory Group for the Open Office XML standard and recently was appointed onto the ISO TC/223 and CEN TC391 committees ('Societal and Citizen Security') on behalf of the National Standards Authority of Ireland. He is the convener of the NSAI ISO TC 223 CEN TC 391 IG working group.

Tom works as a leading researcher in Emergency Management, Disaster and Crisis Management in the SECTOR and DESTREERIO projects. He jointly leads the management of a Horizon 2020 project (Aquasmart), which addresses Big Data issues for the Aquaculture industry and he is also involved in human trafficking research. Tom has also worked for the Irish National Software Directorate and is an active member of the editorial committee for the American journal Software Quality Professional. He has worked for the European Commission reviewing the progress of European funded projects across a variety of domains (e.g. ICT, Factory of Future and Research for Benefit of SMEs). He has also worked for the Commission in the proposal evaluation process for FP7 and H2020 proposals submissions across a variety of areas including Reflective 7, eHealth, eInclusion and International Collaboration.



**Stephen M. Purcell** (BSc. [Hons] MRUP MIS MIPI MSCSI MRICS) [@StephenMPurcell](#) is a qualified regional and urban planner, a qualified surveyor and a Director of Future Analytics Consulting. FAC were recipients of the 'Ireland's Champions of EU Research Award' in 2012 and specialise in strategic planning, project management and evidence-based research.

Stephen has significant experience in working with local government, private consultancy, community group stakeholders and multinational groups, providing expert advice on urban resilience and security, strategic spatial planning, demographic forecasting and community development in Ireland, the United Kingdom and throughout Europe.

Stephen also works across a number of on-going large scale European Commission Seventh Framework Programme-funded research and development projects with international consortia, including S-HELP, which focuses on the development of decision support tools for improving the preparedness and response of health services involved in emergency situations, and COBACORE, which focuses on the development of a central emergency management coordination tool to enable community-based comprehensive recovery from disaster.

Through his work with FAC, Stephen has established a reputation in European research activities, in addition to expertise in bid/proposal writing services, project management and collaboration activities with a wide range of public and private sector organisations, augmenting his own active participation in ongoing research and development projects.

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