



D5.2 – Public

How lessons learned can be captured and included in the development of guidelines.



Expecting the unexpected and know how to respond

ADAPT TO SURVIVE

DARWIN Community of Resilience and Crisis Practitioner (CoCRP) resilience concepts, users and academia interactive workshops (WS1)

VERSION

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ABSTRACT

The DARWIN project aims to develop state of the art resilience guidelines and innovative training modules for crisis management. The guidelines, which will evolve to accommodate the changing nature of crises, are developed for those with responsibility of protecting the population or critical infrastructure/services from policy to practice.

The aim of this deliverable is to describe the process and results of the interactive Community of Crisis and Resilience Practitioners workshop (CoCRP Workshop). The purpose of the workshop was to facilitate the sharing of resilience experiences as well as to provide feedback on DARWIN developments. The methodology used to fulfil this task was an interactive workshop implementing “affinity map” innovation game with practitioners involved in issues related to resilience within different disciplines and at different levels. Target audience readers e.g. practitioner (industry, government, NGOs) and academia interested in resilience and crisis management can use this document as a body of knowledge on experiences relevant for resilience and crisis management. Readers from the DARWIN project can use feedback provided by CoCRP members as means to increase relevance and usefulness of project results in terms of addressing needs concerning resilience management. The workshop provides the following content and insights:

- Experiences how real cases have been managed in a resilient way within different domains e.g. railway, aviation and healthcare.
- Useful format and content of guidelines.
- Challenges and key factors when developing generic guidelines.
- How concepts important for resilience can be trained.
- Vital aspects in order to increase resilience.
- Things to improve and things to keep when organizing an interactive workshop.

KEYWORDS:

Resilience, Resilience Engineering, Crisis Management, Interactive, Workshop, End-users, Practitioners; Innovation games

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D5.2– DARWIN CoCRP resilience concepts, users and academia interactive workshops

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Executive Summary

The aim of this deliverable is to describe the process behind and results from the Community of Crisis and Resilience Practitioners workshop (CoCRP) held in April 2016 in Linköping, Sweden. The purpose of the workshop was to facilitate the sharing of experiences as well as to provide feedback on DARWIN developments. The methodology applied to fulfil this task was an interactive workshop with tabletop discussions and an innovation game, “Affinity map”. Resilience practitioners within different disciplines and countries, at different levels, such as: policy makers, managers, service providers and first responders participated.

Resilience management guidelines with the aim of increasing resilience within the society are often based on different concepts (see D1.2 “Evaluation and selection of resilience concepts and approaches”) related to resilience and crisis management. According to the workshop discussions, resilience concepts are often overlapping each other as they are interdependent. Some of the concepts (e.g. decision making or resource allocation) important for resilience can be trained by i.e. computers, video games, apps or tablets, but joint full scale or table-top exercises with all actors involved are essential for more complete analyses of a sector or a society’s resilience. Collaboration and coordination between the local, national and regional level is seen as vital in order to increase resilience. Guidelines should keep up to everyday procedures but enable quick decisions and facilitate reallocation of resources. Further, they need to be relatively non- specific; as too specific guidelines discourage flexibility; which is required during a crisis.

Experiences that were exposed during the workshop was that the format of guidelines can vary depending on in which phase they are needed. During the pre-incident phase it can consist of more specific guidelines, during the incident phase the guidelines should be more generic and short pocket-sized, and in the post incident phase the guidelines can be both, but there must be opportunities for revisions. Formats online are easy to update with new procedures, on the other hand it was perceived insecure, therefore, it is important to have back-up plans and/or systems that work offline. Documents offline are a reliable format but tougher to keep updated, a combination of both is therefore suggested. Media and social media are both promising areas that can facilitate the increase of resilience.

Generic guidelines that will fit all countries within the EU will be a challenge since the term is used differently within different sectors and above all, between different countries. This unique multidisciplinary and multi-sectorial gathering will on the other hand facilitate the work to discover, evaluate and define the term. Even though we come from different parts of Europe, it has been revealed that we have similar points of views concerning resilience management. Guidelines that can fill knowledge gaps within Europe, with a good balance between generic and specific must therefore be based on experts and people who have knowledge and experience off crisis management from different countries, levels and disciplines.

About the project: The DARWIN project aims to develop state of the art resilience guidelines and innovative training modules for crisis management. The guidelines, which will evolve to accommodate the changing nature of crises, are developed for those with the responsibility of protecting population or critical services from policy to practice. The guidelines address the following resilience capabilities and key areas:

- Capability to anticipate
 - Mapping possible interdependencies
 - Build skills to notice patterns using visualisations
- Capability to monitor
 - Identify resilience related indicators, addressing potential for cascade
 - Establish indicators that are used and continuously updated
- Capability to respond and adapt (readiness to responds to the expected and the unexpected)
 - Conduct a set of pilot studies
 - Investigate successful strategies for resilient responses
- Capability to learn and evolve
 - Explore how multiple actors and stakeholders operate in rapidly changing environments
 - Enable cross-domain learning on complex events



- Key areas: social media and crisis communication; living and user-centred guidelines; continuous evaluation and serious gaming

1 Introduction

1.1 Purpose of the document

The aim of this deliverable is to describe the process behind and results of the interactive CoCRP workshop. The purpose/goal of the workshop was to facilitate the sharing of experiences as well as to provide feedback on DARWIN developments. The workshop involved a wide collaboration of DARWIN's end user stakeholders including those directly involved in crisis and disaster management, policy makers, service providers, managers, first responders and the public.

1.2 Intended readership

The intended readership is actors that are interested in issues concerning crisis management, e.g. crisis response practitioners from safety- and security-critical complex domains to research communities involved in various aspects of resilience and crisis management research and application. The project partners of DARWIN will benefit from a wider collaboration of DARWIN's end user stakeholders including those directly involved in crisis and disaster management, policy makers, service providers and managers.

1.3 Structure of this document

Chapter 1 gives a brief introduction to the DARWIN project in order to give the context of the deliverable as well as to describe its relationship to other deliverables in the project. Chapter 2 describe the background with objectives, and planning, preparation and implementation. The main part of this deliverable is chapter 3, which describe the result of the first CoCRP Workshop. Then Conclusion (chapter 4), Evaluation (chapter 5), Limitation (chapter 6), and Things to improve and things to keep (chapter 7) labelled.

1.4 Inputs and relationship with other deliverables

The CoCRP workshop results are the main output of this deliverable, but in order to reach these results the main contributions and input to this deliverable were, apart from the practitioners and researchers during the workshop, the following deliverables:

- **D1.1- Consolidation of resilience concepts and practices for crisis management:** This deliverable presents a collection of needs, issues, and definitions in relation to resilience management which D1.3 has used as input to the formulation of requirements.
- **D1.2 - Evaluation and selection of resilience concepts and approaches:** This deliverable gives two main inputs to the current deliverable :
 1. A set of criteria for evaluating concepts, approaches and practices in relation to their appropriateness which D1.3 has taken as input to the formulation of requirements;
 2. A set of the most appropriate concepts, approaches and practices for incorporation in resilience management guidelines, prioritized according to their level of importance (building on D1.1).
- **D1.3 - Practitioner and academic requirements for resilience management guidelines:** This task will transform the results of T1.1 and T1.2 into a relevant and valid set of requirements for resilience guidelines to be developed within this project.
- **D2.1- Generic Resilience Management Guidelines:** The main purpose of this task is to specify how the most promising concepts and methods identified in T1.1 and T1.2 will be adapted to manage crisis.
- **D3.1 - Process and tools for easy access of guidelines:** The work of this task is to ensure access to the guidelines is made easily available to the various users who require access.
- **D4.1- Evaluation Methodology and Planning:** This Task will deal with the identification of what we want to evaluate and test.



- **D5.1- CoCRP Terms of reference and collaboration:** This task defines and sets the collaboration strategy, procedures to invite, share knowledge and work in an innovative and open manner.
- **D6.1 - Dissemination:** Effective dissemination is critical to the long-term impact of DARWIN results and the resilience guidelines.

1.5 Acronyms and abbreviations

Table 1: List of definitions

Term	Explanation
DARWIN Resilience Management Guidelines ¹	Help or advice for DARWIN Resilience Management Guideline users to recognise or improve resilient performance (from the definition of “guidance”, Merriam-Webster Online Dictionary)
Incident	Situation that might be, or could lead to, a disruption, loss, emergency or crisis (ISO 223000:2012)
Resilience ²	The ability to resist, absorb, accommodate to and recover from the effects of disturbances and changes in a timely and efficient manner, including through adaptation and restoration of basic structures and functions (adapted from UNISDR, 2009; Hollnagel, 2011).
Stakeholder	Person or organization that can affect, be affected by, or perceive themselves to be affected by a decision or activity. A decision maker can be a stakeholder (ISO 31000:2009).

Table 2: List of acronyms and abbreviations

Term	Explanation
CoCRP	Community of Crisis and Resilience Practitioners
DCoP	Darwin Community of Practitioners

¹ This is a working definition, which may be updated throughout the DARWIN project, likely as part of WP2.

² This is a working definition, based on the DoA definition and a common definition in Resilience Engineering. As a working definition it may be updated throughout the DARWIN project, likely as part of WP2.



2 Background

2.1 Objectives

The main objective of the CoCRP workshop was to promote the adoption of the resilience concepts developed in DARWIN. The CoCRP will contribute to the project by further developing appropriate suggestions on improvements that could be made to the guidelines by sharing their knowledge, practices and experiences. The interactive workshop also provided indicators of what works well and what does not and consequently it supported DARWIN partners in mapping promising approaches and as a result, contributed to ensuring transnational, cross-sector applicability, long-term relevance of dynamic and easy usage resilience guidelines.

2.1.1 Scope of the workshop

The workshop focused on actors working in the resilience field across different domains.

2.1.2 Deliverable of the workshop

The main deliverable of the workshop will be the end-users' input and perspective on the evolving resilience guidelines.

2.1.3 Take away – End users

This workshop gave participants information on the up-to-date and evolving resilience guidelines that will enable rapid, effective, coordinated and flexible responses. Furthermore, it facilitated the exchange of knowledge, insights, expertise and lessons learnt from practitioners and researchers, and thus promoted international networking concerning resilience concepts.



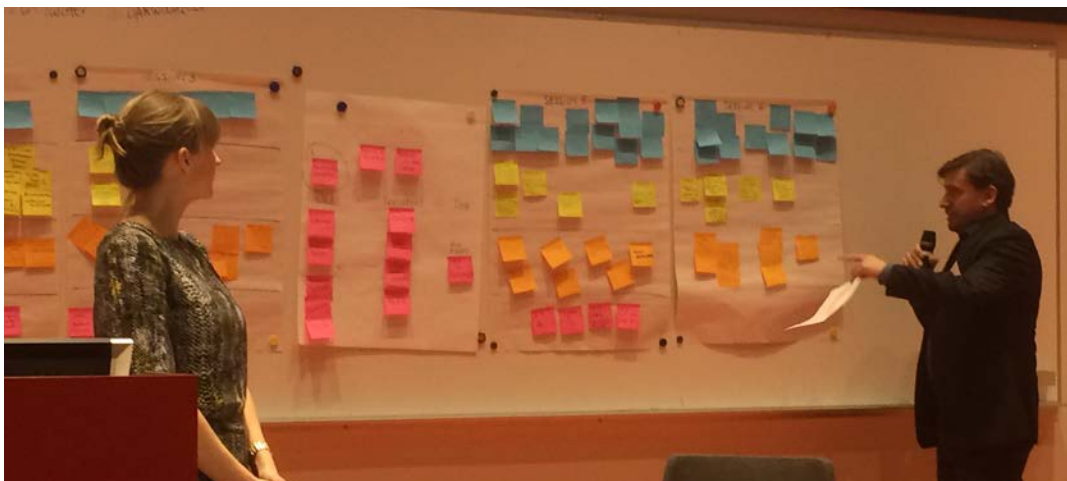
2.2 Planning, preparation and implementation

2.2.1 Content, setup and innovation game

The agenda (Appendix 9.1) covered a short presentation of the DARWIN project's scope and how resilience can be increased in real crises. This served as an introduction to all workshop participants on the focus and objective of the workshop. Several of DARWIN's work packages desired specific input and feedback from the CoCRP. The agenda was scheduled to ensure these needs were met through different sessions related to different work package's objectives. The sessions presented below were elaborated and followed by round table discussions in four different groups, each with approximately 10 participants, representing both researchers and practitioners. In one case, discussions took place across all workshop participants. The instructions provided for the round table discussions were that the participants would discuss questions prepared by the session presenter (Appendix 9.2), sum-up their ideas and write them down on sticky notes. Each group then presented their ideas in response to the questions and posted them on a flat working surface visible to everyone following the discussions. Each group was also assigned a facilitator and a note taker.

Sessions for CoCRP Workshop

- Resilience management in crisis – DARWIN scope
Experiences from real crises – How can we increase resilience?
- Worldwide resilience concepts, approaches and requirements for guidelines – Key findings
- Generic resilience management guidelines – is it possible?
- Resilience management guidelines toolkit – How can it be developed?
- Type of crisis and relevant scenarios





2.2.2 Target audience and participants

The workshop invitation (Appendix 9.3) was sent to members of the CoCRP and other relevant end users that are involved in disaster management, policy makers, service providers, managers and first responders. Participants' attendance at the workshop was from a variety of different disciplines and countries, and from a diversity of levels and responsibilities, e.g. from U.K, Israel, The Netherlands, Italy, Sweden, Germany, Norway and Spain and from a broad spectrum of organisations and specialities such as; director of the public emergency medical service, teachers within the resilience field, emergency medical officers, police, fire protection engineer, crisis manager, chairman of national council for trauma and emergency medicine, personnel from the National board of health and welfare, air traffic control officer and researcher within e.g. risk- and safety and environmental public health (Appendix 9.4).

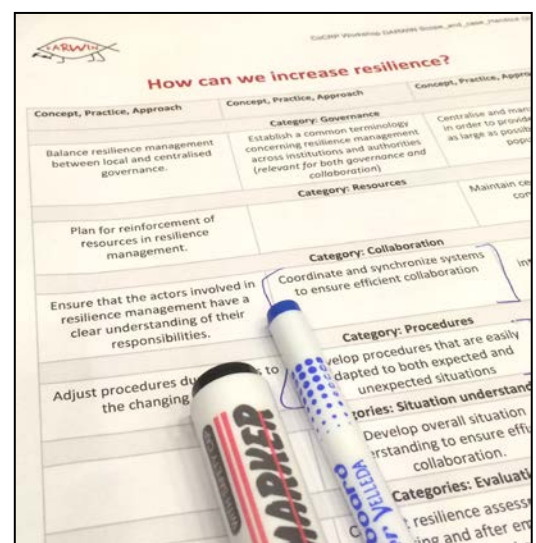


3 Result and analysis

After the workshop the notes from each session were gathered and summarised by each table top group note taker and facilitator. Then, each group summarised discussions were compiled according to each topics discussed in the different sessions. Down below, the sum-up and the main outcomes of the discussions that took place during the workshop sessions are presented in sub- sections.

3.1 Useful resilience concepts in the presented scenario

The Harstena scenario (Lindegrenn et al, 2011) presented in session 1 was discussed based on the concepts developed by work package 1 (see D1.2 “Evaluation and selection of resilience concepts and approaches”) implementing “affinity map” innovation game (Gray, 2010). It was not entirely clear how to





join the concepts together. Participants thought that the concepts were categorised (Appendix 9.5) in a way that made it difficult to explore if the concepts were useful. They discussed the possibility of describing them at another level. The emphasis on the availability of resources among the concepts was also lacking.

The concepts have overlaps since they create chain reactions, which is why several of the concepts are important. Consequently, joint exercises are important; it will give a better understanding of each other's tasks and needs. However, it appeared that the concept of "Governance" was essential since it, for example, affects available resources and collaboration and it is at this level the responsibility for managing the response lie in many cases. Hence, collaboration and coordination between local, national and regional levels is crucial in order to increase resilience. CoCRP feedback provided additional insights to DARWIN paper titled "Applying resilience concepts in crisis management and critical infrastructures – the DARWIN project" submitted to ESREL 2016 Conference.

3.2 Resilient managing and/or response

The session of worldwide resilience concepts, approaches and requirements for guidelines are outlined below. The following discussion related to resilient management and response to crisis events focused on the participants' own previous experiences of crisis management and they were asked to describe situations or events that they thought illustrated aspects of resilience. Examples of experiences from end- users from incidents that were considered to have been managed in a resilient way and how these lessons could be captured into guidance are described below:

- **A 90s Boeing crash** that destroyed a neighbourhood contributed to a much better response with better registry of victims, samples of bio monitoring etc. at the Heathrow crash in July, 2013 due to lessons observed and lessons implemented in the response plan. Victims felt that they were taken care and there were no conspiracy theories in the post-crash phase. The perceptions were that the 90s Boeing crash led to a much more resilient response to the Heathrow crash since the aviation system as a whole was now perceived resilient after necessary measures observed from the earlier event.
- **A national transplant coordination center** was able to move an organ in a short time from one city to another by reallocation of resources. Reallocation was also the key to resilience following a high-speed train crash in Santiago de Compostela, Angrois, Spain, which resulted in approximately 220 casualties. The number of ambulances was doubled in order to respond to normal everyday accidents etc., with enough resources available in less than three hours. Team work, the possibility to make decisions quickly and with flexibility was also a success factor.
- **Malmö control center** was affected by a complete radar failure due to a solar storm. All radar systems were affected and there were no radar screens in the control room. The controllers had to work with the latest view on the radar system/screen and despite the severe situation, all controllers and supervisors conducted their work procedure as usual and as trained, no stakeholders even noticed that a severe incident had occurred. Thanks to good planning and collaboration hospitals and other public services were able to remain open despite a heavy snow storm which continued for 24 hours in Gävle, Sweden.
- **A terrorist attack** which resulted in mass-casualties - specifically blast- and gunshot injuries- resulted in an extreme capacity overload at a trauma center. However, the hospital acted according to its contingency plan which they had planned and trained for and as a result, they took command over the situation.

Practical experiences and lessons that could be captured in the guidelines:

- Important to ensure that there is time for reflection after an incident in order to observe lessons and finally learn/implement measures into guidance for the future.
- Planning is essential.
- Good foundation for probability of collaboration.



- The possibility for flexibility.
- Enable quick decisions.
- Facilitate reallocation of resources.
- Keep up with everyday procedures as much as possible.

3.3 Experiences of useful crisis management guidelines

The presentation of the generic resilience management guidelines under progress were discussed in order to gather feedback about the approach and converse specific questions relative to the design of generic guidelines. Therefore, participants aimed to discuss when crisis management guidelines work well and what level of specificity that is useful for generic guidelines.

- Guidelines need to be at a high level and not too detailed.
- Guidelines which are too specific discourage free thinking.
- Specific guidance does not support solving crisis situations.
- Generic guidelines should be the skeleton of the guidelines.
- The generic guidelines should only be revised rarely.
- Guidelines should be generic but also accompanied with training.
- The guidelines should help to link organisations with differing protocols which is a problem today.
- Examined best practices should be included in procedures.
- Important to know the structure of the workplace.
- A leader is needed who can redirect teams and tasks.
- If forced to deviate from normal procedures, it is important to know who is responsible and what limitations exist.
- During the pre-incident phase, there should be specific guidelines; during the incident phase the guidelines should be portable and pocket sized; and in the post-incident phase the guidelines can be both since this is where organisations need to document and learn from the incident.

3.4 Functioning training activities

The session related to how resilience management guidelines can be defined, how a toolkit could be developed and how it would be possible to define and develop methods of access to resilience guidelines. Further, supporting tools for pilot cases and decision making and how it would be possible to develop training material for tutorials on resilience guidelines.

The participants in the workshop gave several examples of different successful training activities, for instance:

- Table-top exercises or high level technical exercises can be very successful.
- Benefits with computerised and table-top exercise are can be short and relatively cheap.
- Video games or applications.
- Need to test interactions and collaborations with others, both within and outside the organisations as well which is why full scale exercises are essential.

3.5 Type of crisis and relevant scenarios

Scenarios that have been created with the aim of evaluate the guideline that will be developed by DARWIN project was presented with the intention of receiving end users thought if propose scenarios were good enough to address resilience concepts that considers important. Scenarios developed in DARWIN project:

1. Airplane crashing in urban area close to Fiumicino airport, Italy. Comments were that the scenario should also include aspects of how to inform the public.
2. Disease outbreak during a flight to Fiumicino airport, Italy.



3. Organ transportation (Istituto Superiore di Sanita) in severe weather conditions. Remarks were made by workshop participants that this scenario was too limited and that they couldn't find enough resilience aspects.
4. A collision with an out of control fire between an oil tanker and a passenger ferry in severe weather conditions. The consensus among participants was that that this is a relevant scenario since it has many aspects with cascading effects.

The workshop participants thought that many of the chosen scenarios had potential yet; based on the discussions a decision was made to focus future development of scenarios on the following basic idea:

- Do not use too localised scenarios; try to expand with more complexities, for example add an evacuation of an entire city or a hospital to the scenarios.

It was further unclear how scenarios will be designed to manage the unexpected. Other suggestions on potential scenarios that were raised:

- Accident in underground transportation.
- Illegal toxic drugs during a festival.
- Train crash with hazardous materials.

3.6 Format and access to emergency management guidelines

How to communicate guidelines and how to ensure accessibilities for end-users to improve the capacity to manage crisis in efficient ways was elaborated in this session. By that, strategies for dissemination and exploitation were discussed as experiences of needs and useful formats. Participants were therefore taught to discuss in which format they access emergency management guidelines and which formats that would be most useful.

Format and access to emergency management guidelines should vary depending on different factors; for example prior to the event, during or after the event. Furthermore, it is important for the guidelines to be adaptable and flexible. The format and access to the guidelines also depends on which end-user will use them. In the field, there may be a need for a very compact, laminated, hard copy checklist which is easy to read.

An issue was raised that there was slight ambiguity around the term community in DARWIN research- does the term community include the general public, NGOs, voluntary organizations etc. and will the DARWIN project aim to develop principles for people who communicate with the public or just experts.

The following different approaches were discussed:

- **Formats online:** computer, phones, Ipads, apps, website SMS, internet communication, intranet. These systems are easy to update with new procedures. On the other hand, it may be insecure to rely on technology in case of power outs. Therefore, it is important to have back-up plans and/or systems that work offline. Furthermore, it is essential to join and connect new technology with current systems in order to avoid developing yet a new system.
- **Paper-**A4 for office and A6 for pocket. Reliable format but tougher to keep updated.
- **Social media** can be seen as a promising area that should increase with time. However, it can be difficult to find competence to manage social media in the middle of a crisis.
- **Media** needs to be considered since these can be an important resilience stakeholder. Yet, they are central in ensuring that the reporting of crises is done correctly.
- **Satellite phones.**
- **Education/training/exercises.**



4 Conclusions

Developing generic guidelines that will fit all countries in the EU will be a challenge. The reason for this is that the majority of nations find it difficult to even develop generic national guidelines. The term resilience is used differently within different sectors and nations and above all, between different countries. For example in Israel, resilience refers to community and military aspects whilst the focus of the workshop discussions has touched organisational resilience. The term must be further developed, evaluated and defined as it is considered quite confusing and unclear. For example, what separates a resilient response from any other response and what is the difference between good management and resilience? On the other hand, this unique multidisciplinary and multi- sectorial gathering revealed that we have similar points of views concerning resilience management, even though we come from very different parts of Europe. We have more in common than we first expected. The guidelines must have a good balance of develop generic and specific guidance that is applicable across Europe. They must solve the complex task of exploring the gaps that currently exist in the field of resilience. In order to achieve this, the guidelines must be based on expert insights from people who have knowledge and experience of crisis management.

5 Evaluation

5.1 Result

After the workshop an evaluation survey (Appendix 9.6) was sent out to end-user participants with the purpose of gathering opinions on the workshop in order to improve upcoming workshops. Down below some of the results from the evaluation is presented.

5.1.1 Overall structure

Areas to improve:

- An initial explanation of the whole dynamic of the workshop in more detail
- Initial briefing materials to be sent in advance of the workshop
- More specific core questions- the workshop felt a bit too general
- Several participants thought that they wanted more time for table top discussions
- Discussions also in full forum
- More time for presentations

Areas to maintain:

- Table top discussions
- Good structure for discussions
- Variety of mixing groups
- Exchange of thoughts and ideas
- Schedule
- Timetable
- Great break-out sessions
- DARWIN personnel
- Participants
- Diversity of people with a mix of professions and experts from different places
- Mix of academia and end users within emergency sector
- Sessions on real scenarios



5.1.2 Workshop content

- The presentation of the real- life Harstena scenario was relevant
- Discussions concerning resilience after emergency and disasters should also include terrorism
- Presentation of real scenarios from participants from different countries and how these were resolved would be interesting for next workshop
- Include terrorism (of all varieties) in the resilience guidelines

5.1.3 Workshop format

- The format is good, yet more time for discussion and presentation would be good
- Too short time to elaborate each topic in a satisfactory level
- There could have been more time for discussions
- Very interesting format with presentations and immediately afterwards group discussion followed by common discussions

6 Limitations

Despite the variety of participants who attended the DARWIN workshop, the local management level in Sweden was missing. The city/ municipality is an important stakeholder and should be invited to future workshops. The wide-ranging scope of the workshop resulted in important information and feedback from the participants which will be valuable for upcoming activities in the project. On the other hand, more specific topics on concepts and more time for round table discussions based on experiences would be very valuable and informative.

7 Things to improve and future work

Upcoming activities will be to plan a workshop in April-May 2017. . An even broader variety of participants will be recruited and invited to the next workshop and some changes will be made to the content and agenda, such as:

- More specific topics
- More time for discussions
- Distribute material prior to the workshop, e.g. hand-outs with an overview of the DARWIN project
- Outdoor activities to allow participants to network



8 References

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9 Appendix

9.1 Agenda for Workshop

Agenda

13th April – Day 1

Time	Activity	Duration	Speaker
12.00	Registration and Lunch	60 min	Rebecca Forsberg, KMC
13.00	Welcome, purpose, agenda, outline of the workshop & practical outline	20 min	Ivonne Herrera, SINTEF/ Helene Nilsson & Rebecca Forsberg, KMC
13:20	Presentation of participants	20 min	All
13:40	Session 1: Resilience management in crisis – DARWIN scope	20 min	Ivonne Herrera, SINTEF
	Experiences from real crises – How can we increase resilience?	30 min	Ivonne Herrera, SINTEF, Carl-Oscar Jonson, KMC
	Round Table discussions	30 min	
15:00	Session 2: Worldwide resilience concepts, approaches and requirements for guidelines – Key findings	20 min	Rogier Woltjer, FOI
	Round Table discussions	30 min	
15:50	Session 3: Generic resilience management guidelines – is it possible?	10 min	Matthieu Branlat, SINTEF
	Round Table discussions	30 min	
16:30	End of day		
19:00	Networking event W/catering		Best Western Plus Priceless hotel



14th April – Day 2

Time	Activity	Duration	Responsible/speaker
09:00	Session 4: Resilience management guidelines toolkit – How can it be developed? Round Table discussions	10 min 40 min	Peter Förster Horst, Per Schachtebeck, TUBS
09:50	Session 5: Type of crisis and relevant scenarios Round Table discussions	20 min 30 min	Luca Save, DBL
10:40	Coffee and Visits at KMC	65 min	Helene Nilsson, Johan Hornwall, KMC
11:45	Lunch	60 min	
12:45	Session 6: Strategy for dissemination and exploitation – What are the experiences, needs and useful formats? Round Table discussions – DARWIN webpage	10 min 40 min 10 min	Ciara Eustace, CARR
13.45	Presentations and sum- up from round table discussions	60 min	All
14:45	Coffee break	10 min	Ivonne Herrera, SINTEF
15:00	Closing address from DARWIN Project Coordinator	30 min	
15.30	End of day	The bus will transfer you from KMC in the following order to: <ol style="list-style-type: none"> 1. The Best Western Plus Priceless hotel 2. Train station 3. Airport 	



9.2 Table top questions

Table- top Questions	
Session 1	Explore if presented resilience concepts are useful in the Hadstena scenario
Session 2	From your experience, identify a situation that you consider was managed in a "resilient" way (who, what and why)? How could lessons from this event be captured into guidance?
Session 3	In your experience, when do crisis management guidelines work well? What is a useful level of specificity for generic guidelines?
Session 4	What kind of training activities works especially well?
Session 5	Are the proposed scenarios good enough to address resilience concepts that are important? Other situations – constrains and limitations during crises - What prevents you to sleeping at night? To what extent can the proposed scenarios be managed with already existing procedures?
Session 6	In which formats do you access emergency management guidelines? Do you think the target end-user groups are appropriate? Which formats would be most useful for specific end-user groups?



9.3 CoCRP Workshop Invitation



Expect the unexpected and know how to respond

ADAPT TO SURVIVE

Website: <http://h2020darwin.eu/>

 [@DARWINH2020](https://twitter.com/DARWINH2020)

CoCRP Workshop details			
Type	Interactive workshop on resilience		
Start date & time	13 th April 2016, CET 12.00pm	Finish date	14 th April 2016, CET 16:00pm
Meeting Location	Centre for Teaching & Research in Disaster Medicine and Traumatology (KMC) [Katastrofmedicinskt Centrum], Sweden, Linköping Johannes Magnusväg 11 SE-581 85 Linköping		
Meeting host	Rebecca Forsberg, Ph.D., CoCRP Project Manager	Organization	KMC
Contact information	Phone: 46 (0)70-589 83 19 e-mail: Rebecka.forsberg@regionostergotland.se		





Purpose of the CoCRP workshop

The purpose of the workshop is to exchange knowledge and lessons on how to enable rapid, effective, coordinated and flexible responses in man-made and natural crises. Feedback from end-users on the evolving DARWIN Resilience Management Guidelines, will consequently contribute to enhance EU responses to crises.

Scope of the workshop

The workshop focuses on the two domains of DARWIN: health care and air traffic management. Accordingly, actors working with resilience within these domains will be the main participants.

Deliverable of the workshop

The main deliverable of the workshop will be the end-users' input and perspective on resilience guidelines.

Take away

This workshop will give participants information of up-to-date and evolving resilience guidelines that can enable rapid, effective, coordinated and flexible responses. Further, it will facilitate exchange of knowledge, insights, expertise and lessons learnt for practitioners and researchers, and thus promote international networking concerning resilience aspects.

Agenda

13th - Day 1

Time	Activity	Duration	Speaker
12.00	Registration and Lunch	60 min	Rebecca Forsberg, KMC
13.00	Welcome, purpose, agenda, outline of the workshop & practical outline	20 min	Ivonne Herrera, SINTEF/ Helene Nilsson & Rebecca Forsberg, KMC
13:20	Presentation of participants	20 min	All
13:40	Session 1: Resilience management in crisis – DARWIN scope	20 min	Ivonne Herrera, SINTEF
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	Round Table discussions	30 min	
15:00	Session 2: Worldwide resilience concepts, approaches and requirements for guidelines – Key findings	20 min	Rogier Woltjer, FOI
	Round Table discussions	30 min	
15:50	Session 3: Generic resilience management guidelines – is it possible?	10 min	Matthieu Branlat, SINTEF
	Round Table discussions	30 min	
16:30	End of day		
19:00	Networking event W/catering		



14th – Day 2

Time	Activity	Duration	Responsible
09:00	Session 4: Resilience management guidelines toolkit – How can it be developed? Round Table discussions	10 min	Thomas Feuerle, Per Schachtebeck, TUBS
		40 min	
09:45	Session 5: Type of crisis and relevant scenarios Round Table discussions	20 min 30 min	Luca Save, DBL
10:35	Break	25 min	
11.00	Session 6: Strategy for dissemination and exploitation –What are the experiences, needs and useful formats? Round Table discussions	15 min	Eddie Shaw, CARR
		45 min	
12:00	Lunch	60 min	
13.00	End users experiences & perceptions –Needs in order to increase resilience? Round Table discussions	60 min	Rebecca Forsberg, KMC
14.00	Presentations and sum- up from round table discussions	60 min	All
15.00	Break	15 min	
15:15	Closing address from DARWIN Project Coordinator	45 min	Ivonne Herrera, SINTEF
16.00	End of day		



9.4 CoCRP Workshop Participants

CoCRP Workshop Participants		
Id	Place at work	Country
1.	Swedish Police Authority	Sweden
2.	KMC – Centre for Teaching & Research in Disaster Medicine	Sweden
3.	Lund University	Sweden
4.	SINTEF	Norway
5.	ENAV S.p.A.	Italy
6.	Ben-Gurion University of Negev	Israel
7.	Public Health England	United Kingdom
8.	Ben-Gurion University of Negev	Israel
9.	Carr communications International Consultancy	Ireland
10.	ENAV S.p.A.	Italy
11.	KMC – Centre for Teaching & Research in Disaster Medicine	Sweden
12.	The National Board of Health and Welfare	Sweden
13.	IDF Home Front Command	Israel
14.	Technische Universität Braunschweig	Germany
15.	RIVM (National Institute for Public Health and the Environment	The Netherlands
16.	Region Gävleborg	Sweden
17.	KMC – Centre for Teaching & Research in Disaster Medicine	Sweden
18.	SINTEF	Norway
19.	KMC – Centre for Teaching & Research in Disaster Medicine	Sweden
20.	Emergency Medical Services	Spain
21.	KMC – Centre for Teaching & Research in Disaster Medicine	Sweden
22.	Ambulance service Region Jönköping	Sweden
23.	Italian National Transplant centre	Italy
24.	KMC – Centre for Teaching & Research in Disaster Medicine	Sweden
25.	FOI – Swedish Defence Research Agency	Sweden
26.	Rescue Service Östra Götaland	Sweden
27.	Ministry of Health	Israel
28.	FOI – Swedish Defence Research Agency	Sweden
29.	SINTEF	Norway
30.	Emergentziak Osakidetza	Spain
31.	ISS – Istituto Superiore di Sanità	Italy
32.	Deep Blue SRL	Italy
33.	Technische Universität Braunschweig	Germany
34.	ISS – Istituto Superiore di Sanità	Italy
35.	FOI – Swedish Defence Research Agency	Sweden
36.	Lund University/LUCRAM	Sweden
37.	Italian National Transplant Centre	Italy
38.	SAMU	Spain
39.	FOI – Swedish Defence Research Agency	Sweden
40.	Malmö Air Traffic Control Centre	Sweden
41.	FOI – Swedish Defence Research Agency	Sweden



9.5 Resilience concepts evaluated within the H2020 DARWIN project

Resilience concepts evaluated within the H2020 DARWIN project		
Concept	Practice	Approach
Category: Governance		
Balance resilience management between local and centralised governance.	Establish a common terminology concerning resilience management across institutions and authorities (<i>relevant for both governance and collaboration</i>).	Centralise and manage assistance in order to provide services to an as large as possible portion of the population.
Category: Resources		
Plan for reinforcement of resources in resilience management.		Maintain central (rather than local) control of resources.
Category: Collaboration		
Ensure that the actors involved in resilience management have a clear understanding of their responsibilities.	Coordinate and synchronize systems to ensure efficient collaboration.	Address potential interdependencies between the different actors and systems.
Category: Procedures		
Adjust procedures during crises to the changing reality.	Develop procedures that are easily adapted to both expected and unexpected situations	Consider flexibility in resilience management beyond adherence to procedures.
Categories: Situation understanding		
	Develop overall situation understanding to ensure efficient collaboration.	
Categories: Evaluation		
	Conduct resilience assessments prior to, during and after emergencies, disasters and crises.	
Categories: Planning		
	Use resilience management support systems as a part of everyday practices.	

Project number: 653289

Project duration: June 2015 – May 2018

Project Coordinator: Ivonne Herrera,
SINTEF

Website: www.h2020darwin.eu



HORIZON 2020: Secure Societies

TOPIC DRS-7-2014

Crisis and disaster resilience –
operationalising resilience concepts

RESEARCH AND INNOVATION ACTION



EXPECT THE UNEXPECTED AND KNOW HOW TO RESPOND

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