



# EU-CIRCLE

A pan-European framework  
for strengthening Critical  
Infrastructure resilience to  
climate change

## D8.5 Document on the mid-term dissemination activities

**Contractual Delivery Date:** 11/2016

**Actual Delivery Date:** 29/12/2016

**Type:** Report

**Version:** v0.7

**Dissemination Level Deliverable:** Public

### *Statement*

Deliverable 8.5 presents a collective overview of the EU-CIRCLE dissemination and communication activities performed by all partners for the first 18 months. It introduces the achieved KPIs and its impacts on the target audience groups as specified in the Dissemination and Exploitation Plan (D8.1)

© Copyright by the **EU-CIRCLE** consortium, 2015-2018

**EU-CIRCLE** is a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 653824. Please see <http://www.EU-CIRCLE.eu/> for more information.

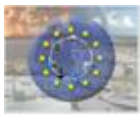
**⚠ DISCLAIMER:** This document contains material, which is the copyright of EU-CIRCLE consortium members and the European Commission, and may not be reproduced or copied without permission, except as mandated by the European Commission Grant Agreement no. 653824 for reviewing and dissemination purposes.

The information contained in this document is provided by the copyright holders "as is" and any express or implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose are disclaimed. In no event shall the members of the EU-CIRCLE collaboration, including the copyright holders, or the European Commission be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of the information contained in this document, even if advised of the possibility of such damage.



Preparation Slip			
	Name	Partner	Date
From	S. Karozis	NCSR	2/12/2016
Reviewer	L. Shakou, C. Varianou	EUC	3/12/2016
For delivery	A.Sfetsos	NCSR	29/12/2016

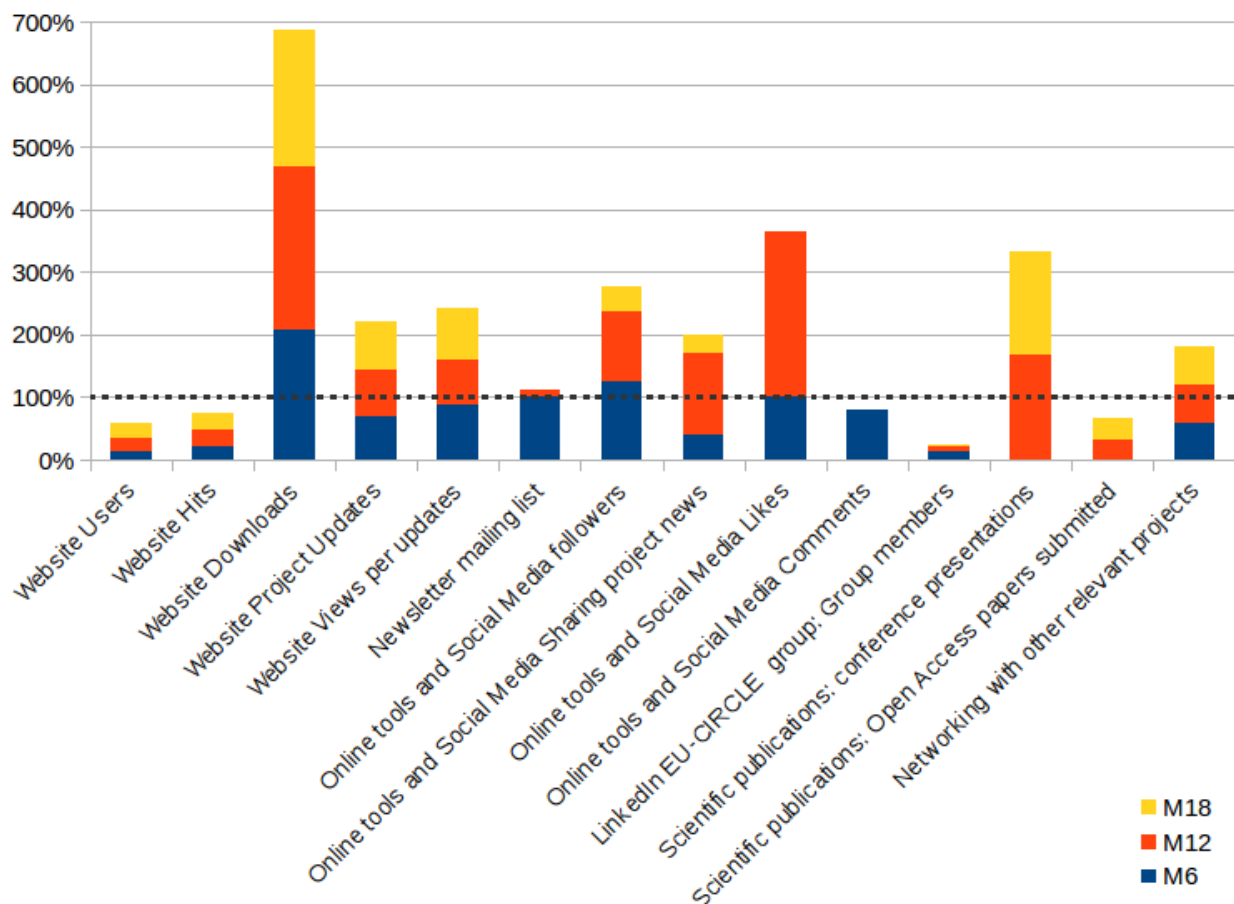
Document Log			
Issue	Date	Comment	Author / Organization
V0.1	22/11/2016	First draft	A. Sfetsos/S. Karozis/NCSR
V0.2	30/11/2016	Publications/Reports added	A. Sfetsos/S. Karozis/NCSR All partners contributed inputs
V0.3	02/12/2016	Publications/Reports added Finalized	A. Sfetsos/S. Karozis/NCSR
V0.4	12/12/2016	Minor changes	A. Sfetsos/S. Karozis/NCSR
V0.5	16/12/2016	Minor changes	A. Sfetsos/S. Karozis/NCSR



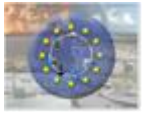
## Executive Summary

This report introduces an extended overview of the dissemination and exploitation activities performed by the EU-CIRCLE partners during the first reporting period (18 months) of the project. The project partners have been engaged in multiple activities (78 recorded as per Table 1) targeting diverse audiences that include the CI community (owners and operators), Critical Infrastructures Authorities and Civil Protection Agencies at different governmental levels (National, Regional and Local) and members of the climatology and meteorology community. The project partners have been engaged in multiple exchange of knowledge and discussions with similar funded projects both from the EU and internationally (e.g. NIST-CORE), during specifically organised events, scientific conferences and infodays. EU-CIRCLE showed a strong presence in the web and related social media though constantly publicizing the generated knowledge and results to the widest possible audience.

As such EU-CIRCLE is well placed to reach the set KPI's during the first period of the project, as shown in the figure below. The lower boundary of the each KPI's goal corresponds to the 100% completion. The chart indicates that some KPI's have reached their target, and several others are on good track to be achieved by the end of the project.

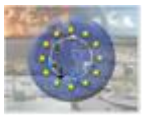


EU-CIRCLE achieved KPI's until M18



## Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>2</b>
<b>CONTENTS .....</b>	<b>3</b>
<b>1 INTRODUCTION .....</b>	<b>4</b>
<b>2 DISSEMINATION RESULTS .....</b>	<b>6</b>
2.1 EU-CIRCLE Website .....	6
2.2 Dissemination activities.....	8
2.3 EU-CIRCLE Newsletter .....	14
2.4 Social media presence .....	15
2.5 Key Performance Indicators .....	16
<b>3 ACADEMIC RESULTS.....</b>	<b>18</b>
<b>4 IMPACT OF THE DISSEMINATION ACTIVITIES .....</b>	<b>22</b>
<b>5 CONCLUSION .....</b>	<b>24</b>
<b>6 ANNEX I.....</b>	<b>26</b>



## 1 Introduction

Communication and dissemination have been identified as integral facets of EU-CIRCLE research activities; actions vital in raising awareness and promoting the impact and added value of the project. To this extend the project partners have engaged in multi-dimensional dissemination activities to the three main types of audience groups identified in D8.1 “Consolidated Dissemination, Communication and Exploitation Plan”. These are:

- ✓ Primary Group of Interest
  - CI community. These include all types of CI owners and operators identified in the EU Directive 114/2008: energy and transport, in the ongoing discussions for its revision (SWD(2013) 318 final) and national policies.
  - National Critical Infrastructures Authorities, as identified in the EU Directive 114/2008 and national Laws.
  - Civil protection authorities at regional, national and EU level, also closely linked to emergency and first responders.
  - Members of the Climatology-Meteorology scientific community and those working in the domain of critical infrastructure protection.
  - Others (NGOs, professional societies, the insurance sector, media).
- ✓ Secondary Group of Interest
  - EU and National projects and organisations currently engaged in related research areas
  - Internationally (non-EU) related projects
- ✓ Tertiary Group of Interest
  - Groups identified as very active in EU-CIRCLE relevant research areas such as academia, researchers and experts,
  - Government bodies and organisations that could be potential users of EU-CIRCLE outcomes.

Within the project lifetime, the partners have been actively engaged in multi-dimensional dissemination activities targeting the above specific audiences, each with the appropriate degree of elaboration in order to make the EU-CIRCLE message more understandable and customizable to the specificities of each group. Section 4 presents a summative evaluation of the performed actions for each interest group, building on the extensive description of the dissemination activities introduced in sections 2 and 3.

During the first half of the project the dissemination activities were mostly categorised under as “**Awareness-oriented**” as their main objective was to create visibility and raise awareness amongst all interested parties and audiences. This is common in the starting phases of research projects, when the results build-up occurs. The actions included the project website, social media presence, designing and distributing print dissemination material, organising and participating in project-related events.

During the latter stages of the first project period, the project partners have been gradually begin to communicating and disseminating the project’s achieved results - “**results – oriented**” phase, with emphasis on the derived methodology (WP1), processing of climate information (WP2), risk and resilience methodologies (WP3 and WP4 respectively) and the development of the computational tools (WP5). Activities within this phase include the publication of papers in journals, participation at related conferences and events, end user workshops and information days.

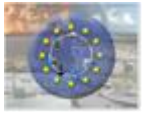
In this document, we present an overview of the work conducted for dissemination activities for:

- EU-CIRCLE Website (section 2.1)



- EU-CIRCLE Dissemination activities (section 2.2)
- EU-CIRCLE Newsletters (section 2.3)
- Social Media Presence (section 2.4)
- Key performance indicators of the primary communication tools (section 2.5)
- EU-CIRCLE Academic publications (section 3)

Section 4 assess the impact of the described activities both quantitative, in terms of the KPIs identified in D8.1 “Consolidated Dissemination, Communication and Exploitation Plan” and qualitative on the identified audiences.



## 2 Dissemination Results

This section provides an overview of the Dissemination results produced in the first 18 months of the EU-CIRCLE project. It presents the EU-CIRCLE Website (paragraph 2.1), the Partners' dissemination activities (paragraph 2.2), the EU-CIRCLE Newsletter (paragraph 2.3), EU-CIRCLE Social Media Presence (paragraph 2.4), and the Key Performance Indicators for all these actions (paragraph 2.5).

### 2.1 EU-CIRCLE Website

One of the first EU-CIRCLE communication tools to be set up was the dedicated EU-CIRCLE Website, which was online in M3. The picture illustrates the Website's Home page and structure. The technical details and the structure of the Website are explained in more detail in Deliverable D8.4 <sup>1</sup>.



Figure 1: EU-CIRCLE Website Homepage

Currently the Website structure is as follows:

- Home
- About
  - What is EU-CIRCLE
  - The consortium
  - Global Initiatives
- Research
  - Case studies
  - Key findings
  - Deliverables
  - Stakeholder area
- Related Projects
  - Global initiatives
  - EU funded projects
  - Other projects
- Dissemination material
  - Scientific Publications
  - Newsletters

<sup>1</sup> <http://www.eu-circle.eu/research/deliverables/>



- Press releases
  - Presentations
  - Archive
- News & Events
- Contact
- Partner Area (which is a link to Partner's Intranet)

The main dissemination tool of the project is the EU-CIRCLE website. All the deliverables and other relevant information of the EU-CIRCLE project are made available to all interested parties through the EU-CIRCLE website which also acts as the project's mutual memory.

Integrated in the EU-CIRCLE website is a one-click access to the project's LinkedIn, Facebook and Twitter pages and a live feed from the EU-CIRCLE Twitter account.

In section 2.5 of this Update the Key performance indicators of the EU-CIRCLE Website in M6, M12 and M18 are presented.





## 2.2 Dissemination activities

EU-CIRCLE Partners are expected to be as active as they can in terms of disseminating information about the EU-CIRCLE project. In this paragraph the Dissemination activities in the first 18 months of EU-CIRCLE are listed (see Table 1). Dissemination activities in this context are any structured and registered type of communication about the project's characteristics and output, directed at various target groups (press, stakeholders, general public, science, etc.). Partners describe their activities in a specifically designed input form, indicating the Type of activity, the Partner, the Date, Location, Name of Event and Target group. On the form they are also asked to provide any other material about the event (pictures, links to websites, etc.). Academic dissemination in the form of papers and presentations at academic conferences and workshops will be described in paragraph 3.

Table 1: EU-CIRCLE Dissemination activities (M1-18, 1.6.2015-30.11.2016)/Sorted by Date

Type activity	Partner	Date	Location	Name of event	Target group
Newsletter	Artelia	4.2015	Web	Artelia's institutional newsletter	Readership
Conference proceedings	NCSRD	12-14.5.2015	Copenhagen, Denmark	European Climate change adaptation conference - 2015	Scientists
Magazine articles	UVG	6.2015 10.2015 12.2015 4.2016 8.2016	Velika Gorica, Croatia	5 articles in Gaudamus, UVG Magazine	Readership
Press release	NCSRD	11.6.2015	Athens, Greece	Press release	Press
Presentation	Artelia	11-12.6.2015	Madrid, Spain	Meeting of Directors of Environmental & Water Research Institutes	Directors EWRI
Presentation	NCSRD	21-27.6.2015	Gdansk, Poland	9 <sup>th</sup> Summer Safety & reliability seminars	Scientists
Presentation	GMU	21-27.6.2015	Gdansk, Poland	9 <sup>th</sup> Summer Safety & reliability seminars	Scientists
Presentation	USAL	27.8.2015	Seoul, South Korea	Knowledge Sharing on Critical Energy Infrastructure Facilities for Improved Disaster Resilience	International conference attendees
Presentation	GMU	7-10.9.2015	Zurich, Switzerland	European Safety and Reliability Conference-ESREL 2015	Scientists
Presentation	DHMZ	7-11.9.2015	Sofia, Bulgaria	15th EMS Annual Meeting & 12th European Conference on Applications of Meteorology (ECAM)	Scientists
Presentation	GMU	23-29.9.2015	Rhodes, Greece	International Conference of Numerical Analysis and Applied Mathematics - ICNAAM 2015 Symposium/Workshop on Safety of Critical Infrastructures	Scientists
Other project cooperative action	NCSRD	5-7.10.2015	Athens, Greece	Joint EU-CIRCLE and NIST-CoE on Community Resilience Workshop - seminar on ERGO training	Europ. Scientists ; ERGO platform users



Presentation	GMU	14–16.10.2015	Kołobrzeg, Poland	Marine Traffic Engineering Conference and International Symposium Information on Ships, MTE-ISIS	Scientists
Presentation	DHMZ	16. Oct. 2015	Zagreb, Croatia	7th Croatian NSDI (National Spatial Data Infrastructure) and INSPIRE Day	Scientists
Presentation	KEMEA	20.10.2015	Rome, Italy	EUCONCIP Opening Conference	Scientists, Practitioners
Press conference	UVG, NPRD, DHMZ	20.10.2015	Zagreb, Croatia	Presentation EU-Circle project	Local/National press
Presentation	DHMZ	9–11. Nov. 2015	Šibenik, Croatia	conference HRO-CIGRE	Scientists
Presentation	DMHZ	13.11.2015	Zagreb, Croatia	1 <sup>st</sup> annual conference IPE	Scientists
Presentation	NCSR	28.11.2015	Egkomi, Cyprus	CY Workshop EU-CIRCLE	Master/PhD students EUC
Presentation	DHMZ	3–4.12.2015	Zagreb, Croatia	5 <sup>th</sup> “Savjetovanje o Savi” conference	Hydrologists, engineers, archit.
Other project cooperative action	Satways	11.12.2015	London, UK	Meet Infrarisk-FP7 “Novel Indicators for identifying critical INFRAstructure at RISK from natural hazards”	Scientists
Other project cooperative action	NCSR	14–15.12.2015	Athens	Workshop for Critical Infrastructure Protection, KEMEA/JRC	National NC-CIPs, CI owners/operators
Newsletter1	DUZS	6.6.2016	--	Forwarding newsletter1	National NC-CIPs
Participation	UNEXE	16–17.1.2016	Reading, UK	FloodHack organised by ECMWF	30 international researchers at RMS
Other project cooperative action	NCSR, EUC	1.2.2016	Brussels, Belgium	FP7/H2020 input for UNFCCC decision on COP21	Scientists/EU policy
Discussion	DHMZ	11.2.2016	Ljubljana, Slovenia	National CI stakeholders	National CI stakeholders
Presentation	KEMEA	8.3.2016	Bilbao, Spain	European Technology Platform for Industrial Security (ETPIS)	Scientists, policy makers
Presentation	UNEXE	12.3.2016	York, UK	Liberal Democrat Party Spring Conference	general public audience
Presentation	DHMZ	23.3.2016	Zagreb, Croatia	World Met Day 2016	Government, scientists
Presentation	USAL	24–26.3.2016	Salford, UK	Climate Change Impacts Workshop Session and Presentation on Climate Change Impacts on Resilience: Critical Infrastructure	Scientists
TV program	UVG	30.3.2016	Velika Gorica, Croatia	UVG as partner in EU projects	General public
Presentation	UNEXE	4.4.2016	London, UK	Seminar presentation to global insurance industry	researchers at RMS
Presentation	Norwegian Met Institute	1.4.2016	Oslo	Norwegian Post Association conference	Port managers/workers
Presentation	NCSR	12.4.2016	Split, Croatia	9 <sup>th</sup> Int. Conference “Crisis Management Days”	Scientists, policy makers
Lecture	UNEXE	12.4.2016	Exeter, UK	lecture to postgraduate students	postgraduate students
Presentation	UVG	12.4.2016	Split, Croatia	Invited lecture/9 <sup>th</sup> intern conference “Crisis Management Days”	Conference participants
Presentation	DHMZ	12–13.4.2016	Split, Croatia	9 <sup>th</sup> Int. Conference “Crisis Management Days”	Conference participants



Presentation	KEMEA	13-14.4.2016	Stockholm, Sweden	E&T EARTO (European Association of Research and Technology Organizations)	Conference participants
Participation	UNEXE	18-19.4.2016	Beijing, China	Workshop at Tsinghua University	attendees from universities, research institutes, government agencies, industry companies and British Council
Discussion	NCSRD, KEMEA	19.4.2016	Athens, Greece	Discussion with Greek Energy providers	Greek Energy sector representatives
Conference-participation	DHMZ	17-22.4.2016	Wien, Austria	Annual EGU General Assembly	scientists
Research exploitation	UNEXE	21-22.4.2016	Taipei, Taiwan	Meetings at Taiwan Typhoon and Flood Research Institute (TTFRI), National Science and Technology Center for Disaster Reduction (NCDR), and National Taiwan University	Academic researchers
Presentation	DHMZ/UVG/DUZS	28.4.2016	Zagreb, Croatia	Croatian H2020 info day	Croatian based scientists/gov officials
E-Dissemination (various media/portals)	UVG	2.2015-5.2016	Croatia	News on EU-Circle	Citizens, students, lecturers
Presentation	USAL	5-6.5.2016	Selangor, Malaysia	Climate Impacts Resilience Dissemination Workshop Session on Critical Infrastructure Vulnerability	Participants of Workshop
Presentation	NCSRD	10-13.5.2016	Rotterdam, Netherlands	Adaptation Futures2016	Scientists, Nat. Governments, practitioners
Presentation	KEMEA	11-12.5.2016	Amersfoort, Netherlands	table top exercise (TTX) for CIP organised by the Dutch NCP for CIP and the Netherlands EU Presidency	TSO and DSO enterprises, power companies and Government organizations
Presentation	UNEXE	12.5.2016	Dresden, Germany	EUSTO Final Conference	Transport operators, Government organizations
Presentation	NCSRD	27-28.5.2016	Dresden, Germany	EUSTO project final conference	Transport operators, Government organizations
Discussion	KEMEA	16-17.6.2016	Brussels, Belgium	EARTO meeting	Research and Technology Organisations from EU
Discussion	KEMEA	21-23.6.2016	Brussels, Belgium	Pilot Course for Mid-Career Security Managers in Critical Infrastructure Protection and Resilience	CI operators from Italy, Austria, Albania, Greece, Romania, France, Netherlands, Germany, Spain
Booth/Presentation	UNEXE	21-22.6.2016	Brussels, Belgium	Water Innovation Europe 2016	attendees from the industry, academia and



					public organisations
Presentation	GMU	19-25.6.2016	Gdansk, Poland	10th Jubilee Summer Safety and Reliability Seminars	Scientists
Presentation	NCSRD	19-25.6.2016	Gdansk, Poland	10th Jubilee Summer Safety and Reliability Seminars	Scientists
Presentation	NCSRD	23-25.6.2016	Alexandroupolis , Greece	SafeEvros	Private sector / Government organizations
Presentation	NCSRD	28-29.6.2016	Leipzig , Germany	H2020-PLACARD General Assembly	Scientific Community
Presentation	Huddersfield * <sup>2</sup>	29.6.2016 – 1.7. 2016	Venice, Italy	Flood Resilience Impact and Responses (FRIAR) Conference	
Conference Paper	USAL	5-7.8. 2016	Kandy, Sri Lanka	12th International Conference of the International Institute for Infrastructure Resilience and Reconstruction (I3R2)	scientists
Presentation	UNEXE	6-7.7.2016	Manchester, UK	RMetS/NCAS Conference 2016   Royal Meteorological Society	international attendees with academics, industrial background
Lectures	UNEXE	12.7.2016	Exeter, UK	University of Exeter International Summer School	undergraduate students
Presentation	UNEXE	22-24.8.216	Inchoen, South Korea	Hydroinformatics 2016	academics and industry
Presentation	Huddersfield * <sup>2</sup>	5.9.2016	London, UK	Training Seminar: “Enhancing Community Resilience through ‘build back better’ and small scale adaptation”	Participants of Seminar
Display/Stall – Exhibition Space	USAL	7.9. 2016	Manchester, UK	One Resilience Conference	Conference participants
Presentation	NCSRD	16.9. 2016	Ljubljana, Slovenia	STREST Final Workshop	participants
Participation	UNEXE	5-7.10.2016	Barcelona, Spain	ETC	attendees with academics, industrial background
Display/Stall – Exhibition Space	IVI	6-8.10.2016	Dresden, Germany	Florian Trade Fair	Conference participants
Lecture	UNEXE	12.10.2016	Incheon, South Korea	Flood Expo 2016	global attendees, mainly from industry
Report	Torbay Council	20.10.2016	Exmouth, Devon	Quarterly South West Regional Flood and Coastal Committee meeting	British based scientists/gov officials
Participation	UNEXE	24-25.10.2016	Orlando, USA	Global Innovation Initiative workshop	participants from UK, US, China and Mexico
Presentation	IVI	27.10.2016		NATO-Panel: "Systems, Concepts and Integration" (SCI) - 38th Business-Meeting"	Participants from NATO-member states, researchers and representatives from defence authorities
Presentation	UNEXE	6-	Tainan, Taiwan	12ICHE	audiences from

<sup>2</sup> Presentations from Prof. B. Ingirige concerning his work with EU-CIRCLE.



		10.11.2016			academic, industry and government agencies
Presentation	DAPP	28-29.11.2016	Milano, Italy	IDEA Workshop - Improving Damage assessments to Enhance cost-benefit Analyses	Government organizations / Scientists
Participation	UNEXE	21-22.11.2016	Exeter, UK	WEFE workshop UK-China	representatives from the UK academia and an equal number from China
Display/Stall – Exhibition Space	Artelia	29.11.2016 – 2.12.2016	Lyon, France	Pollutec – 27th international trade fair on environmental equipment, technology and services.	Conference participants
Update website	Artelia	12.12.2016	Web	Update on EU-CIRCLE Project through Artelia group's internal website	3500 people worldwide



Figure 2 Sample of dissemination activities photos of EU-CIRCLE project

4TH INTERNATIONAL CLIMATE CHANGE ADAPTATION CONFERENCE  
 ROTTERDAM THE NETHERLANDS 10 – 13 MAY 2016



**ADAPTATION  
FUTURES 2016**  
practices and solutions

---

TUESDAY, 10 MAY 2016

[GO TO  
PREVIOUS PAGE](#)
[GO TO  
CONTENT](#)
[GO TO  
SESSION OVERVIEW](#)

---



**SC 1.1**

Chair  
Rapporteur

Presentations

**Theme 1 • Cities and infrastructure**  
**13.30 – 15.15**  
**Goudriaan Room II**

**Critical infrastructure**

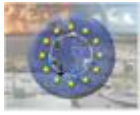
Chris Zevenbergen, UNESCO-IHE/Delft University of Technology, the Netherlands  
 Tim Busker, Utrecht University, the Netherlands

---

The relevance of cascading effects for adapting critical infrastructures to climate change  
 Markus Groth, Climate Service Center Germany (GERICS), Germany  
 Adapting long-lived infrastructure to uncertain climate change  
 Klaus Eisenack, Carl von Ossietzky University Oldenburg, Germany  
 The impacts of global and regional change on the resilience of critical infrastructures  
 Joern Birkmann, University of Stuttgart, Germany  
 Simulated adaptation in storm water systems: evaluating the efficiency of adaptation pathways  
 Adam McCurdy, University of Colorado, USA  
 A Pan-European framework for strengthening critical infrastructure resilience to climate change  
 Thanasis Sfetsos, National Center for Scientific Research Demokritos, Greece

Figure 3 Programme of Adaptation Future, May 2016. Session presentation of EU-CIRCLE





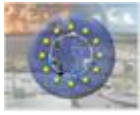
## 2.3 EU-CIRCLE Newsletter

Newsletters are distributed (as digital documents only) following important occasions in the course of the EU-CIRCLE project (Workshops, et cetera). The newsletters are emailed to a dedicated email list, to which website visitors can subscribe, and can also be downloaded from the EU-CIRCLE Website<sup>3</sup>. After the Cyprus Partner workshop (November 2015), and the Milan Consolidation and Partner workshop (May 2016), two newsletters were distributed accordingly. The distribution figures are listed as KPIs in paragraph 2.5. The reader is invited to follow the link to the remainder of the article on the EU-CIRCLE Website and gain access to information about the EU-CIRCLE project and the Partners involved. These feature articles either deal with certain aspects of the project, or describe the activities during the workshops and other relevant events.



Figure 4: Front page EU-CIRCLE Newsletter#1

<sup>3</sup> <http://www.eu-circle.eu/documented-material/newsletters/>



## 2.4 Social media presence

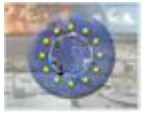
EU-CIRCLE uses social media like LinkedIn, Facebook and Twitter to inform the community of upcoming events and during its workshops. We have chosen these three because they address different target groups, although they have many features in common. In addition to providing direct and up to date information, the aim is for the social media tools to encourage followers to visit the EU-CIRCLE website.



Figure 5: The home page of EU-CIRCLE's Twitter account. (accessed on 24<sup>th</sup> November 2016)

Indicators on the use of the Social Media tools are presented in paragraph 2.5.





## 2.5 Key Performance Indicators

The success of the activities set out in the Dissemination Plan depends on their regular monitoring and evaluation, throughout the project's lifetime, so as to measure their impact in 'real-time' and adapt the Plan when needed to achieve its aim. As such the Dissemination Plan is a 'living document' and may be revised during the project's lifetime; this is expected to maximise success and visibility (the current document is the update in M18).

At the start of the project, Key Performance Indicators (KPIs) were defined per type of communication activity which are continually measured and monitored. The table below presents the KPIs at M6, M12 and M18.

Table 2: Summary table Key Performance Indicators (Target, achieved M6, M12, M18)

	<b>Target KPI (good) 36 Months</b>	<b>Achieved M6</b>	<b>Achieved M12</b>	<b>Achieved M18</b>	<b>In Total</b>
EU-CIRCLE Website Users <sup>1</sup>	5000-10000	661	1068	1214	2943
EU-CIRCLE Website Hits <sup>1</sup>	5000-10000	1064	1307	1307	3678
EU-CIRCLE Website Downloads	50-100	104	131	109	344
EU-CIRCLE Website Project updates	> 20	14	15	15	44
EU-CIRCLE Website Views per Update	> 3000 views	2665	2173	2429	7267
EU-CIRCLE Newsletter Mailing list	>300	304	33	0	337
Online tools and Social Media: followers	50-100				
Twitter		25	20	15	60
Facebook		37	36	5	78
Online tools and Social Media: Sharing project news	>40 shares				
Twitter		8	45	12	65
Facebook		8	7	0	15
Online tools and Social Media: Likes	50 likes / share				
Twitter		5	73	0	78
Facebook		46	58	0	104
Online tools and Social Media: Comments	5 comments / share				
Twitter		0	0	0	0
Facebook		4	0	0	4
LinkedIn EU-CIRCLE group: Group members	200-300	26	17	5	48
Online publishing (online magazines, newspapers, blogs)	20 publications	n/a	n/a	n/a	
Online publishing (online magazines, newspapers, blogs)	> 500 views/ publication/year	n/a	n/a	n/a	
Final Workshop	> 150 participants	n/a	n/a	n/a	



Scientific publications: conference presentations	3-7	n/a	5	5	10
Scientific publications: Open Access papers submitted	3-5	0	1	1	2
CIRP appraisal by the community: Number of trials	20-40	n/a	n/a	n/a	
CIRP appraisal by the community: Tool contribution	10-50	n/a	n/a	n/a	
Networking with other relevant projects	5 projects	3	3	3	9

The evolution of the KPI's is illustrated in Figure 6: EU-CIRCLE achieved KPI's where the lower boundary of the each KPI's goal corresponds to the 100% completion. The chart indicates that most KPI's have reached their target.

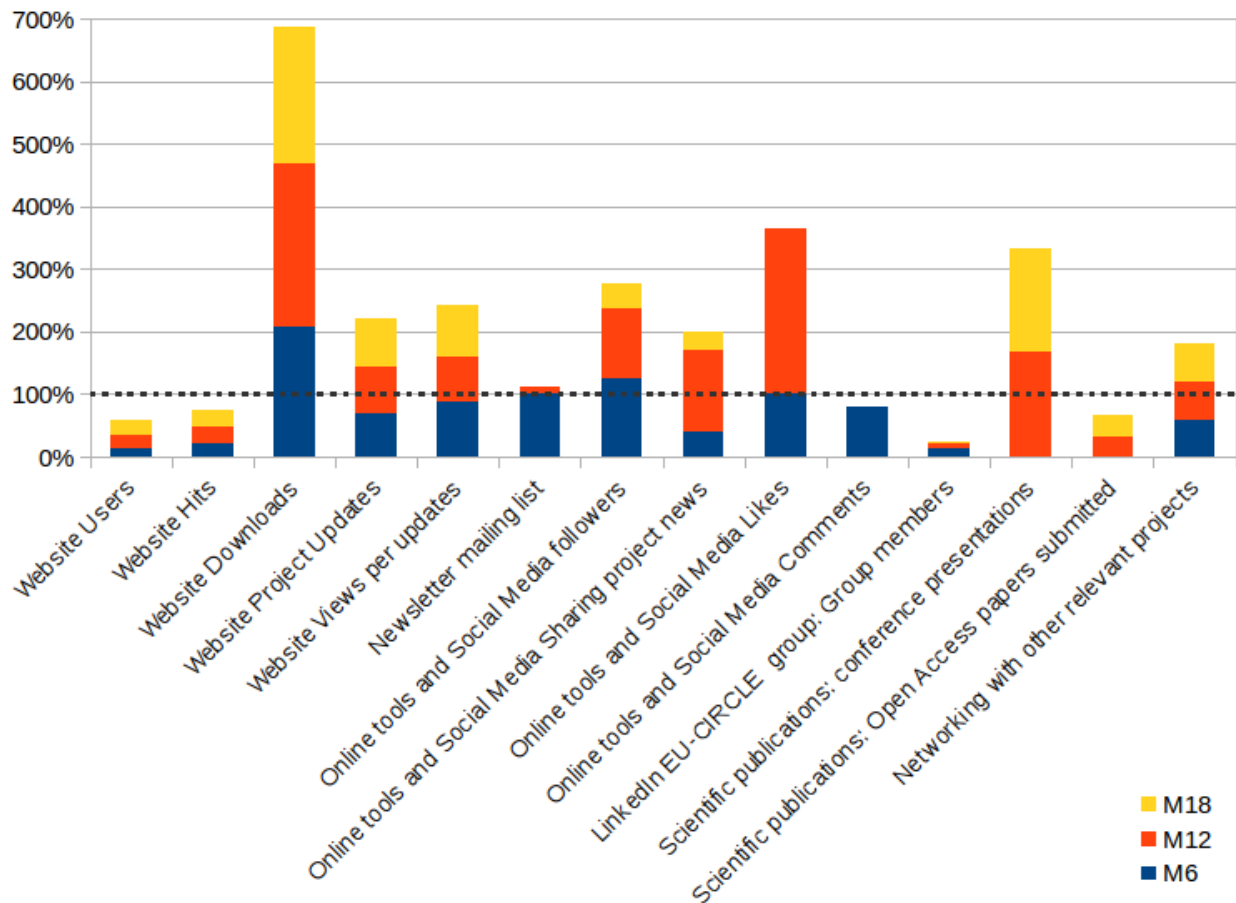


Figure 6: EU-CIRCLE achieved KPI's M1-M18



### 3 Academic Results

EU-CIRCLE aims to actively pursue scientific publications of its generated knowledge in Open Access scientific peer-reviewed outlets as agreed upon in the EU-CIRCLE grant agreement<sup>4</sup>. In the EU-CIRCLE Dissemination plan it is indicated that EU-CIRCLE will be following the anchoring principle of Horizon 2020, International Conferences and Thematic Workshops. Open access is defined by the EU as the practice of providing on-line access to scientific information that is free of charge to the end-user and that is re-usable. In the context of research and innovation, 'scientific information' can refer to (1) peer-reviewed scientific research articles (published in scholarly journals) or (2) research data (data underlying publications, curated data and/or raw data). Table 3 below lists the open access publications, as well as other academic publications, such as peer-reviewed academic conference papers (published in Proceedings or not) that were produced as part of EU-CIRCLE activities in the first 18 months of the project.

Table 3: EU-CIRCLE Academic Publications, and Open Access Publications (M1-18, 1.6.2015-31.5.2016)

Authors – Title - Journal/Conference	
1	Perčec Tadić M; Ivančan-Picek B; Bajić A., Meteorološka podloga procjeni rizika od snijega i leda u Republici Hrvatskoj. Zbornik radova, HRO-CIGRE, Šibenik, Croatia, 9-11. Nov. 2015.
2	Kołowrocki K., Soszyńska-Budny J., Application of critical infrastructure safety modelling in port transport, Scientific Journals of the Maritime University of Szczecin, Vol. 44, No 116, 128-134, 2015, ISSN 1733-8670
3	Blokus-Roszkowska A. 2016. "Reliability analysis of the bulk cargo loading system including dependent components", International Conference of Numerical Analysis and Applied Mathematics 2015 (ICNAAM 2015). AIP Conf. Proc. 1738, T. Simos, Ch. Tsitouras (eds.), 1738A, 440002-1 - 440002-4 (ISBN: 978-0-7354-1392-4; DOI: <a href="http://dx.doi.org/10.1063/1.4952220">http://dx.doi.org/10.1063/1.4952220</a> )
4	Blokus-Roszkowska A., Dziula P. 2016. "An approach to identification of critical infrastructure systems", International Conference of Numerical Analysis and Applied Mathematics 2015 (ICNAAM 2015). AIP Conf. Proc. 1738, T. Simos, Ch. Tsitouras (eds.), 1738A, 440005-1 - 440005-4 (ISBN: 978-0-7354-1392-4; DOI: <a href="http://dx.doi.org/10.1063/1.4952223">http://dx.doi.org/10.1063/1.4952223</a> )
5	Blokus-Roszkowska A., Kołowrocki K., Reliability analysis of multistate series systems with dependent components. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 6, No 1, 73-88, 31-36, 2015
6	Blokus-Roszkowska A., Kołowrocki K., Reliability of the exemplary multistate series system with dependent components. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 6, No 1, 73-88, 37-46, 2015
7	Blokus-Roszkowska A., Kołowrocki K., Reliability analysis of conveyor belt with dependent components. Proc. European Safety and Reliability Conference - ESREL 2015, Zurich, Switzerland, 1127-1136, 2015
8	Bogalecka M., Kołowrocki K., Modeling, identification and prediction of environment degradation initiating events process generated by critical infrastructure accidents. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 6, No 1, 47-66, 2015
9	Bogalecka M., Kołowrocki K., The process of sea environment threats generated by hazardous chemicals release. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 6, No 1, 67-76, 2015
10	Bogalecka M., Kołowrocki K., Soszyńska-Budny J. 2016. "A General Approach to Critical Infrastructure Accident Consequences Analysis", International Conference of Numerical Analysis and Applied Mathematics 2015 (ICNAAM 2015). AIP Conf. Proc. 1738, T. Simos, Ch. Tsitouras (eds.), 1738A, 440006-1 - 440006-4 (ISBN: 978-0-7354-1392-4; DOI: <a href="http://dx.doi.org/10.1063/1.4952224">http://dx.doi.org/10.1063/1.4952224</a> )
11	Kołowrocki K., Gdynia Maritime University contribution to the EU-CIRCLE project „A paneuropean framework for strengthening critical infrastructure resilience to climate change”, Prace Wydziału Nawigacyjnego 29, 5-15, 2015
12	Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Reliability assessment of an exemplary system operating at variable conditions. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 6, No 1, 129-136, 2015
13	Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Monte Carlo simulation application to reliability assessment of an exemplary system operating at variable conditions. Journal of Polish Safety and

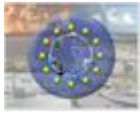
<sup>4</sup> Grant Agreement Number 653824 EU-CIRCLE. This is EU-CIRCLE Task 8.5 as identified in the Grant Agreement.



- 
- Reliability Association, Summer Safety and Reliability Seminars, Vol. 6, No 1, 137-144, 2015
- 
- 14 Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Reliability of complex system under operation process influence – Monte Carlo simulation approach. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 6, No 1, 145-153, 2015
- 
- 15 Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Reliability of maritime ferry technical system, analytical assessment. Proc. European Safety and Reliability Conference - ESREL 2015, Zurich, Switzerland, 1613-1618, 2015
- 
- 16 Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Reliability of maritime ferry technical system, Monte Carlo simulation assessment. Proc. European Safety and Reliability Conference - ESREL 2015, Zurich, Switzerland, 1607-1612, 2015
- 
- 17 Kołowrocki K., Soszyńska-Budny J. 2016. "Preface of the Symposium on Safety of Critical Infrastructures", International Conference of Numerical Analysis and Applied Mathematics 2015 (ICNAAM 2015). AIP Conf. Proc. 1738, T. Simos, Ch. Tsitouras (eds.), 1738A, 440001 (ISBN: 978-0-7354-1392-4; DOI: <http://dx.doi.org/10.1063/1.4952219>)
- 
- 18 Kołowrocki K., Soszyńska-Budny J. 2016. "Modelling safety of multistate systems with ageing components", International Conference of Numerical Analysis and Applied Mathematics 2015 (ICNAAM 2015). AIP Conf. Proc. 1738, T. Simos, Ch. Tsitouras (eds.), 1738A, 440003-1 - 440003-4 (ISBN: 978-0-7354-1392-4; DOI: <http://dx.doi.org/10.1063/1.4952221>)
- 
- 19 Kołowrocki K., Soszyńska-Budny J., Complex system operation cost optimization. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 6, No 2, 13-18, 2015
- 
- 20 Kołowrocki K., Soszyńska-Budny J., Complex system safety and operation cost optimization. Proc. European Safety and Reliability Conference - ESREL 2015, Zurich, Switzerland, 1249-1257, 2015
- 
- 21 Kołowrocki K., Soszyńska-Budny J., Application of critical infrastructure safety modelling in port transport. Scientific Journals of The Maritime University of Szczecin, 128-134, 2015.
- 
- 22 Kołowrocki K., Torbicki M., Reliability of large three-dimensional nanosystems. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 6, No 2, 19-30, 2015
- 
- 23 Kołowrocki K., Torbicki M., Reliability of large two-dimensional nanosystems. Proc. European Safety and Reliability Conference - ESREL 2015, Zurich, Switzerland, 1745-1753, 2015
- 
- 24 Blokus-Roszkowska A., Bogalecka M., Dziula P., Kołowrocki K., Gas pipelines critical infrastructure network. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 1-6, 2016
- 
- 25 Blokus-Roszkowska A., Bogalecka M., Kołowrocki K., Critical infrastructure networks at Baltic Sea and its seaside. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 7-14, 2016
- 
- 26 Blokus-Roszkowska A., Guze S., Kołowrocki K., Soszyńska-Budny J., Port critical infrastructure network. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 15-28, 2016
- 
- 27 Blokus-Roszkowska A., Kołowrocki K., Soszyńska-Budny J. Baltic electric cable critical infrastructure network. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 29-36, 2016
- 
- 28 Blokus-Roszkowska A., Bogalecka M., Dziula P., Kołowrocki K., Methodology for gas pipelines critical infrastructure network safety and resilience to climate change analysis. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 83-92, 2016
- 
- 29 Blokus-Roszkowska A., Bogalecka M., Kołowrocki K., Methodology for Baltic Sea Region critical infrastructures safety and resilience to climate change analysis. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 92-104, 2016
- 
- 30 Blokus-Roszkowska A., Bogalecka M., Kołowrocki K., General methodology on the Baltic Sea critical infrastructure safety aspects – Dictionary. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 105-128, 2016
- 
- 31 Blokus-Roszkowska A., Guze S., Kołowrocki K., Soszyńska-Budny J., Ledóchowski M., Methodology for ship traffic and port operation information critical infrastructures safety and resilience to climate change analysis. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 129-138, 2016
- 
- 32 Blokus-Roszkowska A., Guze S., Kołowrocki K., Soszyńska-Budny J., Methodology for port critical infrastructures safety and resilience to climate change analysis. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 139-150, 2016
- 
- 33 Blokus-Roszkowska A., Kołowrocki K., Soszyńska-Budny J., Methodology for electric cables critical infrastructure network safety and resilience to climate change analysis. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 151-162, 2016
- 
- 34 Bogalecka M., Kołowrocki K., The Baltic Sea circumstances significant for its critical infrastructure networks. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars,
-

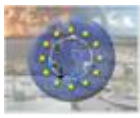


	Vol. 7, No 2, 37-42, 2016
35	Bogalecka M., Kołowrocki K., Soszyńska-Budny J., Ledóchowski M., Reszko M., Shipping critical infrastructure network. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 43-52, 2016
36	Bogalecka M., Kołowrocki K., Soszyńska-Budny J., Ledóchowski M., Reszko M., Methodology for shipping critical infrastructure network safety and resilience to climate change analysis. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 163-172, 2016
37	Bogalecka M., Kołowrocki K., Modelling critical infrastructure accident consequences – an overall approach. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 1-14, 2016
38	Drzazga M., Kołowrocki K., Soszyńska-Budny J., Oil pipeline critical infrastructure network. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 53-60, 2016
39	Drzazga M., Kołowrocki K., Soszyńska-Budny J., Methodology for oil pipeline critical infrastructures safety and resilience to climate change analysis. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 173-178, 2016
40	Dziula P., Kołowrocki K., Modelling operation process of Global Baltic Network of Critical Infrastructure Networks. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 15-20, 2016
41	Guze S., Kołowrocki K., Modelling Operation Process of Baltic Port, Shipping and Ship Traffic and Operation Information Critical Infrastructure Network, TransNav, the International Journal on Marine Navigation and Safety of Sea Transportation, Vol. 10, No. 2, pp. 275-284, 2016
42	Guze S., Kołowrocki K., Joint network of port, shipping, ship traffic and port operation information critical infrastructure network. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 61-64, 2016
43	Guze S., Ledóchowski M., Ship traffic and port operation information critical infrastructure network. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 65-72, 2016
44	Guze S., Kołowrocki K., An approach to Baltic Port, Shipping, Ship Traffic and Operation Information Critical Infrastructure Network operation process. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 21-30, 2016
45	Jakusik E., Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Torbicki M., Modelling climate-weather change process including extreme weather hazards for port oil piping transportation system. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 31-40, 2016
46	Jakusik E., Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Torbicki M., Modelling climate-weather change process including extreme weather hazards for maritime ferry. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 41-46, 2016
47	Jakusik E., Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Torbicki M., Identification methods and procedures of climate-weather change process including extreme weather hazards for port oil piping transportation system operating at under water Baltic Sea area. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 47-56, 2016
48	Jakusik E., Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Torbicki M., Identification methods and procedures of climate-weather change process including extreme weather hazards of port oil piping transportation system operating at land Baltic seaside area. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 57-64, 2016
49	Jakusik E., Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Torbicki M., Identification methods and procedures of climate-weather change process including extreme weather hazards for the maritime ferry operating at Gdynia port area. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 65-72, 2016
50	Jakusik E., Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Torbicki M., Identification methods and procedures of climate-weather change process including extreme weather hazards for maritime ferry operating at Baltic Sea open waters. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 73-80, 2016
51	Kołowrocki K., Conclusions from the workshop on Baltic Sea region critical infrastructure networks and next steps in EU-CIRCLE project research. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 73-82, 2016
52	Kołowrocki K., Kuligowska E., Reszko M., Methodology for wind farms critical infrastructure network safety and resilience to climate change analysis. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 179-186, 2016



- 
- |    |  |
|----|--|
| 53 | Kołowrocki K., Kuligowska E., Reszko M., Methodology for oil rig critical infrastructure network safety and resilience to climate change analysis. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 2, 187-196, 2016                           |
| 54 | Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Maritime ferry critical infrastructure assets and interconnections. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 1, 105-110, 2016  |
| 55 | Kołowrocki K., Kuligowska E., Soszyńska-Budny J., Climate related hazards and their critical / extreme event parameters exposure for maritime ferry critical infrastructure. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 1, 111-118, 2016 |
| 56 | Kołowrocki K., Soszyńska-Budny J., Modelling critical infrastructure operation process including operating environment threats. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 81-88, 2016  |
| 57 | Kołowrocki K., Soszyńska-Budny J., Modelling port piping transport and shipping critical infrastructures operation processes including operating environment threats. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 89-98, 2016          |
| 58 | Kołowrocki K., Soszyńska-Budny J., Identification of port oil piping transportation system operation process including operating environment threats. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 99-112, 2016                         |
| 59 | Kołowrocki K., Soszyńska-Budny J., Identification of maritime ferry operation process including operating environment threats. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 113-130, 2016   |
| 60 | Kołowrocki K., Soszyńska-Budny J., Safety of multistate ageing systems. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 131-142, 2016  |
| 61 | Kołowrocki K., Soszyńska-Budny J., Prediction of climate-weather change process for port oil piping transportation system and maritime ferry operating at Baltic Sea area. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 143-148, 2016   |
| 62 | Kołowrocki K., Soszyńska-Budny J., Modelling climate-weather change process including extreme weather hazards for critical infrastructure operating area. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 149-154, 2016                    |
| 63 | Kołowrocki K., Soszyńska-Budny J., Identification methods and procedures of critical infrastructure operation process including operating environment threats. Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Vol. 7, No 3, 155-168, 2016               |
| 64 | Kołowrocki K., Soszyńska-Budny J., Application of multistate systems safety modelling in maritime transport. Scientific Journals of The Maritime University of Szczecin, No 45, 114-119, 2016.   |
| 65 | Kołowrocki K., Soszyńska-Budny J., Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Special Issue on EU-CIRCLE, Guest Editor: Sfetsos A., Volume 7, Number 2, June 2016, ISSN: 2084-5316  |
| 66 | Kołowrocki K., Soszyńska-Budny J., Journal of Polish Safety and Reliability Association, Summer Safety and Reliability Seminars, Special Issue on EU-CIRCLE, Guest Editor: Sfetsos A., Volume 7, Number 3, June 2016, ISSN: 2084-5316  |
| 67 | M.Thayaparan, B.I.Ingirige, C.P.Pathirage, U.Kulatunga and T.Fernando, A Resilience Framework for Critical Infrastructure, Proceeding of 12th International Conference of the International Institute for infrastructure Resilience and Reconstruction (I3R2), Kandi - Sri Lanka, 5-7 August 2016      |
-





## 4 Impact of the dissemination activities

During its first 18 months EU-CIRCLE has been engaged in multiple dissemination activities targeting diverse audiences and interest groups and has managed, to an important extent, to reach the specified objectives of the D8.1 “Consolidated Dissemination, Communication and Exploitation Plan”.

*O1. Raise awareness of the project’s aims and subsequent results at the local, national, European and international levels.*

EU-CIRCLE has been engaged in different events as identified in Table 1, where all types of communities have been targeted and communicated. An analysis of the geographical distribution of the performed activities shows that:

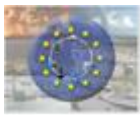
- ✓ 30% (or 21 of the declared activities) have an international dimension, either performed outside the EU or had participants from outside the EU. This includes predominantly participants from the USA, China, S.E. Asia and the Americas.
- ✓ 43% (or 30 of the declared activities) reached a European audience that included members of the CI community and scientific world (meteorologists/climatologists, hydrologists, disaster reduction / resilience communities, safety, energy, transportation and water systems).
- ✓ 27% (or 19 of the declared activities) targeted national audiences in each partner’s country, which in addition to the above type of audience included the general public.

*O2. Increase the reputation and visibility of the project and its constituent partners.*

The project, through the performed dissemination actions described in Sections 2&3, has achieved highly visibility amongst large groups of the science and CI community. The electronic dissemination media reached more than 3000 persons (see KPIs - section 2.5) and the collective number of participants in related events reached cumulatively the order of a few hundreds. This resulted in enhancing the visibility of the partner organizations and strengthening working relationships with leading scientific organizations and the CI stakeholders. Additionally, several partners have been engaged in outreach activities in international initiatives and academic communities that include similar research projects (the US funded NIST-CORE, Typhoon and Flood Research in Taipei) and international conferences on CI protection and disaster resilience in Korea, Taiwan, US and S.E. Asia.

*O3. Promote the project’s results to CI stakeholders through the establishment of a bi-directional communication channel with them.*

The EU-CIRCLE consortium has considered interaction with the CI and climatology stakeholders as an important element in producing meaningful and usable results that could be further exploited by the consortium. The consortium has identified a large and diverse CI stakeholder group that have been subject to targeted interaction. The consortium has already been engaged in interaction with representatives of the above groups in order to discuss eventual climate change impacts to CIs, the methodological framework of the project and to familiarize end users with the approach adopted by the consortium for assessing climate change related risks to essential services as well as for considering resilience concepts and indicators within the operators security plans. These activities include:



- ✓ The participation and responses to the EU-CIRCLE questionnaire (presented in D1.4) <sup>5</sup>, aimed at gaining an understanding of existing OSP protection measures by CI owners/operators, how this community perceives the concept of resilience and how it could be linked to the work performed.
- ✓ Participation in national events and specifically organised meetings with the CI operators in various countries (CY, DE, HR, GR, FR, PL, UK, NO), and engagement in bilateral discussions of EU-CIRCLE partners which are National Contact Points (CNP) in accordance to the Directive 114/2008.
- ✓ Link to other projects (EUCONCIP, IDEA, EUSTO) that actively engage the end user community.
- ✓ Active involvement of the CI operators in the planned case studies with direct communication with the project in FR, PL, UK, DE. Organisation of a specific event to promote the project to CI stakeholders with JRC on the 7-8<sup>th</sup> March 2017 in Cyprus.

The cooperation between the consortium and the EU-CIRCLE stakeholders collectively led to a better understanding of what the CI community perceive as resilience, how they work as regards their preparedness to address threats and manage natural hazards related to climate change as well as how they believe that relevant information should be delivered to them to improve their mitigation and adaptation plans.

*O4. Promote and generate demand for CIRP and other project results to the CI and other relevant stakeholder communities.*

The interaction with the CI stakeholder communities has been extensively pursued within the 1<sup>st</sup> period of the project to promote the project work and achieved results and as a means to generate demand and expectation on the development of the CIRP. To that extent there have been presentations to different communities such as:

- i) the CI owners operators at an EU level within the framework of the ERNCIP and related training activities (KEMEA presentation in Brussels on 21 June 2016)
- ii) the ETPIS platform on industrial safety
- iii) climatology and meteorology community (DHMZ, MetNO)
- iv) the emergency management community through its involvement in the EU-wide Table Top Exercise held in the framework of the NL presidency
- v) events targeting the insurance community (UNEXE)

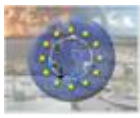
*O5. Seek industrial partners from the CI community for testing and capitalising the project's results.*

The industrial sector partners of the project (ARTELIA, DAPP) have been thus far the driving force in seeking industrial partners for capitalising on the project's results up to this point. Benefiting from their leading role as European consulting organizations, they have paved the way in identifying the market needs and requirements from the project's ongoing work. It contributed to the identification and screening of customised knowledge capitalization, inviting the CI community and the financial sector to use and/or evaluate the models, whereas consortium members may provide customised tools as service to interested parties. The project has been also presented in key events towards the industry (Water Innovation Europe 2016, RMS special events, One Resilience Conf., Florian Trade Fair, Flood Expo 2016, 27<sup>th</sup> Pollutec) discussing specific marketing and promotion initiatives to address and acquire new customers by presenting the technology and possibilities of the achieved results.

---

<sup>5</sup> <http://eu-circle.kemea-research.gr/index.php/survey/index/sid/154347/newtest/Y/lang/en>





Additionally, the direct involvement of the CI community of the organization and execution of the case study from this early part of the project has already introduced efficient ways of capturing their needs and capacities in introducing advanced modelling and simulation tools. This will allow the development of a more user-friendly working environment for the CIRP and also allow stakeholders and users to introduce their operational perspective and thinking in the development of the risk and resilience frameworks thus increasing their use and acceptance of the CIRP.

*O6. Align the project's dissemination activities with calendar events of relevant EU programmes & other initiatives.*

The project has been actively pursuing active collaboration with several other projects in the field (H2020 PLACARD, FP7-INFRARISK, FP7-STREST, FP7-CORFU) participating in joint events and workshops, pursuing the transfer of knowledge and best practices identified. Furthermore, NCSR and EUC participated in a meeting of FP7 and Horizon 2020 projects which discussed possible contributions to the forthcoming Special Report on 1.5°C foreseen by the UNFCCC Decision at COP21 on the Paris Agreement, held in Brussels February 1, 2016. The project is contributing to this initiative through the defined case studies and with the use of the related RCP scenarios downscaled to match the specific climate patterns of the region of interest.

There are plans to organise a joint session at the forthcoming ECCA 2017 Conference and also at the March 2017 meeting of the DG-HOME initiative on the Community of Users. Furthermore, the project is organising a specific CI Workshop on CI protection to be held in Cyprus on 7-8<sup>th</sup> March 2017 to promote a better understanding of the climate change risks between the CI community and the project participants, with envisaged international participation.

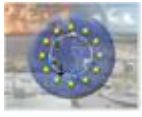
*O7. Share know-how and project outcomes with the relevant scientific communities.*

The project partners have been actively participating in disseminating the project work to the scientific community through the participation in many events from the national to the international scale. In summary, the project partners have been present in 46 different events of academic relevance directly aimed at transfer of knowledge activities with the various communities that are relevant to the project. These include amongst others the ECCA-2015, the Adaptation Futures 2016, ESREL 2015, 9<sup>th</sup> International Conference "Crisis Management Days", EGU Assembly, Royal Meteorological Society. Additionally, EU-CIRCLE has been a key feature of the 9<sup>th</sup> and 10<sup>th</sup> SSARS conferences.

*O8. Disseminate internally within the consortium through collaboration and information exchange between partners.*

The project partners have been using different electronic information exchange platforms and social media to collaborate on how to enhance the dissemination of the project's outcome and strengthen the visibility of the project. The use of the electronic means significantly reduced the need for face to face meetings between the partners, according to the JPI "Climate Friendly Climate Research" initiative.

The consortium has been committed to the principles of Open Research Data Pilot, and uses either a CC-BY or CC-0 license for all of our project products in order to ensure that they are shared with minimal restrictions, aside from attribution to the authors or creators. EU-CIRCLE is committed to participating in the EU Open Research Data Pilot. EU-CIRCLE adopted those objectives and in addition to this, the datasets generated in WP7 (the virtual SimICI) will follow the EU policy and JPI approach guidelines. Four types of datasets will be generated: infrastructure asset description and characteristics (including interconnections) data, climate data, climate impacts to infrastructures data, resilience / adaptation models and approaches data that will be made available to the scientific community.



## 5 Conclusions

During the first project period, all project partners have been actively involved in dissemination actions. Owing to the vast potential interest groups that have been identified and the diverse scientific domain that is of relevance to the EU-CIRCLE a multitude of dissemination activities have been registered by the partners aimed at the CI community, similar EU and International projects and the scientific /academic community. The events had a diverse attendance including from the national community as well as European and International representation which significantly expanded the potential for transferring the generated messages from the project to the widest possible interested parties.

Furthermore, the quantitative targets that have been set for the electronic dissemination of the project's outcome have been met to a large degree (as indicated in table 2 and Figure 1) , and several others are on track to be achieved by the end of the project.

For the next period the dissemination efforts will intensify with more solid research outputs and the conduction of the 5 case studies that will demonstrate the practical use of EU-CIRCLE from the CI community. The CIRP tool shall allow users to define and thoroughly examine their individual infrastructure's resilience in their own unique manner, setting respective priorities and assessment of the final product. Furthermore, during the next period two unique activities will mature that will greatly facilitate the dissemination and exploitation potential of the project: (1) the Simulating Interconnected (Critical) Infrastructures (SimICI), a reference virtual environment for assessing the resilience of infrastructures to climatic pressures, and (2) the Open Call for effective contribution to CIRP.

- EU-CIRCLE will establish a Simulating Interconnected (Critical) Infrastructures (SimICI): a reference virtual environment for assessing the resilience of infrastructures to climatic pressures (WP7). SimICI will effectively be a controlled environment for simulating Climatic Hazards, Effects, and Risk/Impact Propagation through dynamic orchestration of models. It shall provide a reference environment for further exploitation at the end of the project, serving as the primary enabler for an outreach programme intended to maximise awareness and to increase exploitation and ecosystem-led extension in the open-source community.
- Additionally, access to the CIRP and SimICI will be facilitated to non-consortium members. One year before the Final Workshop, there will be an open announcement through the EU-CIRCLE project website, through the national NCP and related scientific societies with an invitation to populate the CIRP and participate with their own models in the final case study.

EU-CIRCLE will also pursue the development of Climate Services as defined by the JPI Climate Strategic Research Agenda: user-driven development and provision of knowledge for understanding the climate, climate change and its impacts, as well as guidance in its use to researchers and decision-makers in policy and business (incl. regions, cities and economic sectors). The provision of specialized climate information towards the CI community shall improve the scientific expertise and technological excellence on extreme weather and climate change risks and adaptation options, but also to connect the knowledge with decision makers.



## 6 Annex I

### DISSEMINATION: Reporting of individual dissemination activities

<b>Name:</b>	M. Perčec Tadić, B. Ivančan-Picek, A. Bajić
<b>Partner Organisation:</b>	DHMZ
<b>Type of dissemination activity:</b>	Conference presentation
<b>Title of dissemination activity (where applicable):</b>	Conference presentation "Procjena rizika od prirodnih katastrofa meteoroloških uzroka"/"Risk assessment from natural hazards in Croatia", the same subject as the one presented at ECAM 2015 in Sofia, but this time for local audience, in Croatian.
<b>Date:</b>	<b>7th Croatian NSDI (National Spatial Data Infrastructure) and INSPIRE Day, Zagreb, Croatia</b>
<b>Location:</b>	<b>Zagreb, Croatia</b>
<b>Brief abstract/description of dissemination activity:</b>	The participants had the opportunity to listen to 20 presentations distributed through IV sessions that covered various topics related to the NSDI; the status at the national level, results, difficulties and deadlines, the subject of open data, public sector data access as well as an overview of the activities of certain subjects involvement in the establishment of the NSDI. Zhe
<b>Brief description of audience/stakeholders:</b>	Public sector, private sector, academic
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://www.nipp.hr/UserDocsImages/dokumenti/publikacije/DGU%20-%20Zbornik%20sa%C5%BEetaka_20151103.pdf">http://www.nipp.hr/UserDocsImages/dokumenti/publikacije/DGU%20-%20Zbornik%20sa%C5%BEetaka_20151103.pdf</a>



<b>Name:</b>	Alen Stranjik, Renata Peternel, Vedrana Čemerin
<b>Partner Organisation:</b>	UVG, NPRD, DHMZ
<b>Type of dissemination activity:</b>	Press conference
<b>Title of dissemination activity (where applicable):</b>	EU Circle project - Is our critical infrastructure ready for climate change?
<b>Date:</b>	20/10/2015
<b>Location:</b>	Zagreb, Croatia
<b>Brief abstract/description of dissemination activity:</b>	Press conference aimed at project presentation and encouraging public dialogue about readiness of critical infrastructure for climate change.
<b>Brief description of audience/stakeholders:</b>	Media with local and national coverage.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<p>Invitation letter <a href="http://www.dropbox.com/s/q2pypw1r82oq4fl/Poziv%20za%20medije_Klimatske%20promjene%20i%20kriti%C4%8Dna%20infrastruktura.pdf?dl=0">www.dropbox.com/s/q2pypw1r82oq4fl/Poziv%20za%20medije_Klimatske%20promjene%20i%20kriti%C4%8Dna%20infrastruktura.pdf?dl=0</a></p> <p>Presentation <a href="http://www.dropbox.com/s/lvfsrrsfmf299j5/EU-CIRCLE%20za%20pressicu_objedinjena%20v2%20FINAL.ppt?dl=0">www.dropbox.com/s/lvfsrrsfmf299j5/EU-CIRCLE%20za%20pressicu_objedinjena%20v2%20FINAL.ppt?dl=0</a></p> <p>Video clip <a href="http://www.dropbox.com/s/57kxpwlpjyt6u9y/EU-CIRCLE_RTL_media.mp4?dl=0">www.dropbox.com/s/57kxpwlpjyt6u9y/EU-CIRCLE_RTL_media.mp4?dl=0</a></p> <p>Press release CRO/ENG <a href="http://www.dropbox.com/s/scmueds4owql8wz/PRIOPCENJE%20ZA%20MEDIJE_PRESS.docx?dl=0">www.dropbox.com/s/scmueds4owql8wz/PRIOPCENJE%20ZA%20MEDIJE_PRESS.docx?dl=0</a> (HR) <a href="http://www.dropbox.com/s/eqe8w5coqosalwo/PRESS_RELEASE_CROATIA.docx?dl=0">www.dropbox.com/s/eqe8w5coqosalwo/PRESS_RELEASE_CROATIA.docx?dl=0</a> (EN)</p> <p>Photos <a href="http://www.dropbox.com/sh/n1t8jj9cu0o71oa/AABdKL0c_4tb52-MTJe_VLkqa?dl=0">www.dropbox.com/sh/n1t8jj9cu0o71oa/AABdKL0c_4tb52-MTJe_VLkqa?dl=0</a></p>



<b>Name:</b>	<b>Ivan Güttler</b> , Ksenija Zaninović, Lidija Srnec, Čedo Branković, <b>Branka Ivančan-Picek</b> , <b>Ksenija Cindrić Kalin</b> , Marjana Gajić-Čapka
<b>Partner Organisation:</b>	DHMZ
<b>Type of dissemination activity:</b>	Presentation at the “1st annual conference of the Institute for Political Ecology”
<b>Title of dissemination activity (where applicable):</b>	Using numerical models in basic and applied climate research
<b>Date:</b>	13 November 2015
<b>Location:</b>	Zagreb, Croatia
<b>Brief abstract/description of dissemination activity:</b>	Motivation and examples are given about how numerical models such as regional climate models can help scientist to explore plausible future climate change. Links with the social and economic sciences (e.g., in defining GHG scenarios) are discussed. EU-CIRCLE is presented as project where impacts of the climate change on the critical infrastructure are of the prime concern.
<b>Brief description of audience/stakeholders:</b>	Conference participants from science and humanity background
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	Conference programme available from: <a href="http://ispmi.uniri.hr/files/ipe_cj_programme_eng.pdf">http://ispmi.uniri.hr/files/ipe_cj_programme_eng.pdf</a>



<b>Name:</b>	Dimitris Diagourtas
<b>Partner Organisation:</b>	Satways Ltd
<b>Type of dissemination activity:</b>	Seminar
<b>Title of dissemination activity (where applicable):</b>	H2020 EU-CIRCLE project: Assessing critical infrastructure resilience to climate pressures
<b>Date:</b>	11 <sup>th</sup> December 2015
<b>Location:</b>	University College London , Department of Civil, Environmental and Geomatic Engineering <a href="http://www.epicentreonline.com/">http://www.epicentreonline.com/</a>
<b>Brief abstract/description of dissemination activity:</b>	This seminar at UCL had two main targets. A) To try to establish a link with the Infrarisk-FP7 “Novel Indicators for identifying critical INFRAstructure at RISK from natural hazards” project where UCL is one of the key partners and B) to inform UCL team of the EU-CIRCLE plans and developments and invite them to participate in our open call to the scientific community that will take place last year.
<b>Brief description of audience/stakeholders:</b>	<p>EPICentre looks to provide a forum for multidisciplinary research into risk from natural hazards and disaster risk reduction. With the driving force behind EPICentre research work being the ambition to drastically reduce loss of life, livelihoods and economic loss in natural disasters.</p> <p>EPICentre research projects are highly multi-disciplinary, and strongly linked to industry, local government and NGO needs. EPICentre brings together researchers from different fields and promotes dialogue, data and knowledge exchange both within individual projects, as well as across research projects.</p> <p><a href="http://www.epicentreonline.com/people#item-team">http://www.epicentreonline.com/people#item-team</a></p>
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<p>Invitation to the Seminar through email:</p> <p>Dear all, I am very pleased to announce an upcoming EPICentre Seminar. Please add to your diaries.</p> <p>This seminar will be given by Dr Dimitris Diagourtas, Managing Director of Satways Ltd, on the subject of ” H2020 EU-CIRCLE project: Assessing critical infrastructure resilience to climate pressures”. Please find a short abstract here below.</p> <p>The seminar will take place on the 11<sup>th</sup> December at 1pm in the</p>

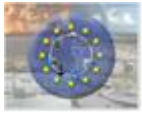



	<p>Classroom 102 of Chadwick Building.</p> <p>As usual, no registration is necessary, just turn up!</p> <p>I look forward to seeing you all,</p> <p>best</p> <p>Carmine</p> <p>The main strategic objective of EU-CIRCLE is to move towards infrastructure network(s) that is resilient to today's natural hazards and prepared for the future changing climate. Furthermore, Critical Infrastructures are inherently interconnected and interdependent systems ; thus extreme events are liable to lead to 'cascade failures'. EU-CIRCLE's scope is to derive an innovative framework for supporting the interconnected European Infrastructure's resilience to climate pressures, supported by an end-to-end modeling environment where new analyses can be added anywhere along the analysis workflow and multiple scientific disciplines can work together to understand interdependencies, validate results, and present findings in a unified manner providing an efficient "Best of Breeds" solution of integrating into a holistic resilience model existing modeling tools and data in a standardized fashion.</p> <p>*****</p> <p><b>Carmine Galasso, PhD</b></p> <p>Lecturer in Catastrophe Risk Engineering Degree Programme Director MSc in Earthquake Engineering with Disaster Management</p> <p>Department of Civil, Environmental &amp; Geomatic Engineering and Institute for Risk &amp; Disaster Reduction University College London</p> <p>Chadwick Building, Gower Street, Room GM14 London WC1E 6BT United Kingdom</p> <p>E-mail: <a href="mailto:c.galasso@ucl.ac.uk">c.galasso@ucl.ac.uk</a>; <a href="mailto:carminegalasso@gmail.com">carminegalasso@gmail.com</a> Phone: +44 (0)20 7679 1570</p> <p><a href="http://www.epicentreonline.com/">http://www.epicentreonline.com/</a> <a href="http://www.ucl.ac.uk/rdr/">http://www.ucl.ac.uk/rdr/</a></p>
--	--

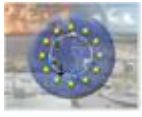


<b>Name:</b>	Ivan Güttler
<b>Partner Organisation:</b>	DHMZ
<b>Type of dissemination activity:</b>	Presentation at the “5. Savjetovanje o Savi” conference
<b>Title of dissemination activity (where applicable):</b>	Climate change projections for the River Sava catchment from the results of the climate models  (Projekcije klimatskih promjena na području sliva rijeke Save prema rezultatima klimatskih modela)
<b>Date:</b>	3-4 December 2015
<b>Location:</b>	Zagreb, Croatia
<b>Brief abstract/description of dissemination activity:</b>	The use of regional climate models is described. Some limitations and benefits are stressed. The results of climate projections over Sava Basin are discussed. EU-CIRCLE is presented as a project where impacts of climate change on the critical infrastructure are in focus.
<b>Brief description of audience/stakeholders:</b>	Conference participants: hydrologists, civil engineers, architectures
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	Conference programme: <a href="http://slap-cro.org/wp-content/uploads/2015/11/Poziv_5_Savjetovanje_Sava.pdf">http://slap-cro.org/wp-content/uploads/2015/11/Poziv_5_Savjetovanje_Sava.pdf</a>





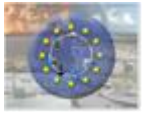
<b>Name:</b>	Petar Vitas, Kristina Milić
<b>Partner Organisation:</b>	National Protection and Rescue Directorate
<b>Type of dissemination activity:</b>	Forwarding Newsletter No1 to National Critical Infrastructure Coordinators
<b>Title of dissemination activity (where applicable):</b>	It is applicable in the area of National Critical Infrastructure protection
<b>Date:</b>	6 <sup>th</sup> of June 2016
<b>Location:</b>	Zagreb, Croatia
<b>Brief abstract/description of dissemination activity:</b>	Dissemination of first Newsletter within EU CIRCLE project. Getting known all Croatian Nacional Coordinators with the updates regarding Critical Infrastructure protection.
<b>Brief description of audience/stakeholders:</b>	National Coordinators from Ministry of Economy, Ministry of the Sea, Transport and Infrastructure, Ministry of Health, Ministry of Finance, Ministry of Agriculture, Ministry of environment and energetics, Ministry of Internal Affairs, Ministry of Culture, Ministry of Science and Education of Republic of Croatia
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	<b>Udayangani Kulatunga and Menaha Thayaparan</b>
<b>Partner Organisation:</b>	University of Salford
<b>Type of dissemination activity:</b>	Workshop
<b>Title of dissemination activity (where applicable):</b>	Climate Change Impacts on Resilience: Critical Infrastructure
<b>Date:</b>	24th-26th March 2016
<b>Location:</b>	Salford, UK
<b>Brief abstract/description of dissemination activity:</b>	Climate Change Impacts Workshop Session and Presentation on Climate Change Impacts on Resilience: Critical Infrastructure
<b>Brief description of audience/stakeholders:</b>	Academics, PhD students and members of the disaster management community.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



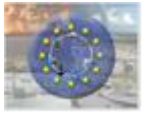
<b>Name:</b>	Alen Stranjik, Renata Peternel
<b>Partner Organisation:</b>	UVG
<b>Type of dissemination activity:</b>	TV reportage
<b>Title of dissemination activity (where applicable):</b>	As a part of television news about implementation and success of EU projects in Croatia.
<b>Date:</b>	30/03/2016
<b>Location:</b>	UVG's premises, Velika Gorica (Croatia)
<b>Brief abstract/description of dissemination activity:</b>	Video-shooting has been organised by the national television broadcaster (Hrvatska radiotelevizija – HRT) with aim to present UVG's experience in EU projects and promote ongoing projects. Mr. Stranjik talked about importance of knowledge and good practice exchange during joint projects with partners across the Europe and presented EU-CIRCLE as a good example.
<b>Brief description of audience/stakeholders:</b>	Wider public (HRT spectators)
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="https://www.dropbox.com/sh/v35re36ola1a5uv/AACPbfwxdFxcCjH3jH49Pboa?dl=0">https://www.dropbox.com/sh/v35re36ola1a5uv/AACPbfwxdFxcCjH3jH49Pboa?dl=0</a> Video not available yet.



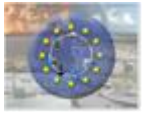
<b>Name:</b>	Melita Perčec Tadić
<b>Partner Organisation:</b>	DHMZ
<b>Type of dissemination activity:</b>	Discussion with the stakeholders from the energy sector about the EU-CIRCLE activities and possibilities for using the results in their field.
<b>Title of dissemination activity (where applicable):</b>	EU-CIRCLE overview of activities in Croatia
<b>Date:</b>	11 February 2016
<b>Location:</b>	ELES, OTLM, Ljubljana, Slovenia
<b>Brief abstract/description of dissemination activity:</b>	Snow and ice, strong wind and high temperatures present the highest loads on electric power transmission lines. Croatian HOPS, the stakeholder responsible for the large part of this system in Croatia and Dalekovod d.d. invited DHMZ for a short meeting and visit to Slovenian public company ELES, Ltd., Electricity Transmission System Operator and OTLM, a company producing devices that measure load on transmission lines and operates an Alarm ice module on transmission lines. EU-CIRCLE plans regarding the building resilience of critical infrastructure are presented.
<b>Brief description of audience/stakeholders:</b>	SLO: ELES, Public Electricity Transmission System Operator; OTLM-Overhead Transmission Line Monitoring, private company  CRO: HOPS, Croatian Transmission System Operator Ltd.; Dalekovod d.d., production, development and construction in transmission systems, transportation etc.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	




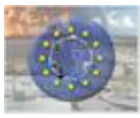
<b>Name:</b>	Melita Perčec Tadić
<b>Partner Organisation:</b>	DHMZ
<b>Type of dissemination activity:</b>	Discussion with the stakeholders from the energy sector about the EU-CIRCLE activities and possibilities for using the results in their field.
<b>Title of dissemination activity (where applicable):</b>	EU-CIRCLE overview of activities in Croatia
<b>Date:</b>	11 February 2016
<b>Location:</b>	ELES, OTLM, Ljubljana, Slovenia
<b>Brief abstract/description of dissemination activity:</b>	Snow and ice, strong wind and high temperatures present the highest loads on electric power transmission lines. Croatian HOPS, the stakeholder responsible for the large part of this system in Croatia and Dalekovod d.d. invited DHMZ for a short meeting and visit to Slovenian public company ELES, Ltd., Electricity Transmission System Operator and OTLM, a company producing devices that measure load on transmission lines and operates an Alarm ice module on transmission lines. EU-CIRCLE plans regarding the building resilience of critical infrastructure are presented.
<b>Brief description of audience/stakeholders:</b>	SLO: ELES, Public Electricity Transmission System Operator; OTLM-Overhead Transmission Line Monitoring, private company  CRO: HOPS, Croatian Transmission System Operator Ltd.; Dalekovod d.d., production, development and construction in transmission systems, transportation etc.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Alen Stranjik, Renata Peternel, Vedrana Čemerin
<b>Partner Organisation:</b>	UVG
<b>Type of dissemination activity:</b>	Magazine articles
<b>Title of dissemination activity (where applicable):</b>	Articles in UVG's student magazine "Gaudeamus".
<b>Date:</b>	Issue: 08/2016
<b>Location:</b>	UVG's premises, Velika Gorica (Croatia)
<b>Brief abstract/description of dissemination activity:</b>	The magazine is published on a regular basis 4 times per years in 800 copies. As of the project start, all issues provided a piece of news regarding happening within the project.
<b>Brief description of audience/stakeholders:</b>	Magazine readership (about 1.500 students and 100 lecturers)
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	06/2016 <a href="http://www.vvg.hr/wp-content/uploads/2016/06/Gaudeamus-8-www.pdf">http://www.vvg.hr/wp-content/uploads/2016/06/Gaudeamus-8-www.pdf</a> (pg 5)

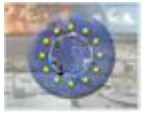


<b>Name:</b>	DKU 2016
<b>Partner Organisation:</b>	NCSRD
<b>Type of dissemination activity:</b>	Scientific Conference
<b>Title of dissemination activity (where applicable):</b>	9th INTERNATIONAL CONFERENCE "CRISIS MANAGEMENT DAYS"
<b>Date:</b>	12-13 April 2016
<b>Location:</b>	Split, Croatia
<b>Brief abstract/description of dissemination activity:</b>	Presentation of the project scope and objectives—Conference keynote presentation
<b>Brief description of audience/stakeholders:</b>	National – Local authorities Emergency managers Academic community
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://dku.hr/?lang=en">http://dku.hr/?lang=en</a> 

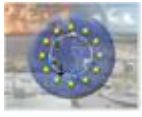



<b>Name:</b>	Adaptation Futures 2016
<b>Partner Organisation:</b>	NCSRD
<b>Type of dissemination activity:</b>	Scientific Conference
<b>Title of dissemination activity (where applicable):</b>	Adaptation Futures 2016 - Fourth International Climate Change Adaptation Conference,
<b>Date:</b>	10 -13 May 2016
<b>Location:</b>	Rotterdam, the Netherlands
<b>Brief abstract/description of dissemination activity:</b>	Presentation of EU-CIRCLE to the global scientific community of climate change adaptation, exchange new and practical ideas, experiences and insights for climate change adaptation
<b>Brief description of audience/stakeholders:</b>	Scholars, practitioners, policymakers and business people from all around the world. In total 1.700 attendees from over 100 countries.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://www.adaptationfutures2016.org">http://www.adaptationfutures2016.org</a> <a href="http://www.adaptationfutures2016.org/programme/sessions/themesissues/theme1/sc1.1">http://www.adaptationfutures2016.org/programme/sessions/themesissues/theme1/sc1.1</a>

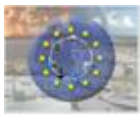





<b>Name:</b>	EUSTO final conference
<b>Partner Organisation:</b>	NCSRD
<b>Type of dissemination activity:</b>	
<b>Title of dissemination activity (where applicable):</b>	Final Conference
<b>Date:</b>	26 May 2016
<b>Location:</b>	Dresden, Germany
<b>Brief abstract/description of dissemination activity:</b>	Presentation on how EU-CIRCLE can be applied to the transport sector
<b>Brief description of audience/stakeholders:</b>	Academia and scientific organizations Operators / owners of public transport , motorways, railways Infrastructure owners and operators National Contact Points (NCP) for EPCIP Security organisations and industry
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://www.eusto.eu/sites/all/themes/multipurpose/images/EUSTOFinalConferenceAnnouncement.pdf">http://www.eusto.eu/sites/all/themes/multipurpose/images/EUSTOFinalConferenceAnnouncement.pdf</a>



<b>Name:</b>	SSARS 2016
<b>Partner Organisation:</b>	NCSRD
<b>Type of dissemination activity:</b>	Scientific Conference
<b>Title of dissemination activity (where applicable):</b>	A pan - European framework for strengthening Critical Infrastructure resilience to climate change EU-CIRCLE
<b>Date:</b>	19-25 June 2016
<b>Location:</b>	Gdynia, Poland
<b>Brief abstract/description of dissemination activity:</b>	Overview of the project and main results achieved during the 1 <sup>st</sup> years, Discussion with participants on execution of the 2 <sup>nd</sup> Case Study
<b>Brief description of audience/stakeholders:</b>	Scientific Community
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



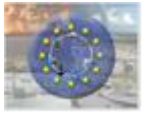
<b>Name:</b>	SAFEVROS 2016
<b>Partner Organisation:</b>	NCSRD
<b>Type of dissemination activity:</b>	Scientific Conference
<b>Title of dissemination activity (where applicable):</b>	EU-CIRCLE: ΠΑΝΕΥΡΩΠΑΙΚΟ ΠΡΟΓΡΑΜΜΑ ΕΝΙΣΧΥΣΗΣ ΤΗΣ ΑΝΘΕΚΤΙΚΟΤΗΤΑΣ ΤΩΝ ΚΡΙΣΙΜΩΝ ΥΠΟΔΟΜΩΝ ΕΝΑΝΤΙ ΦΥΣΙΚΩΝ ΚΑΤΑΣΤΡΟΦΩΝ (presentation in Greek)
<b>Date:</b>	23-25 June 2016
<b>Location:</b>	Alexandroupolis , Greece
<b>Brief abstract/description of dissemination activity:</b>	Overview of the project and main results achieved during the 1 <sup>st</sup> years
<b>Brief description of audience/stakeholders:</b>	Greek community of Civil Protection, scientific community, Regional / local authorities for Civil Protection
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://www.safeevros.gr/sites/default/files/page/attached_files/2016_06_21_safeevros2016-program_31_final.pdf">http://www.safeevros.gr/sites/default/files/page/attached_files/2016_06_21_safeevros2016-program_31_final.pdf</a> 



<b>Name:</b>	PLACARD
<b>Partner Organisation:</b>	NCSRD
<b>Type of dissemination activity:</b>	Networking
<b>Title of dissemination activity (where applicable):</b>	PLACARD General Assembly
<b>Date:</b>	28-29 June 2016
<b>Location:</b>	Leipzig , Germany
<b>Brief abstract/description of dissemination activity:</b>	Presentation of EU-CIRCLE at PLACARD General Assembly, and participation in the disunion on EU policies for Disaster Risk Reduction and Climate Change Adaptation. Networking with other DRS9 projects.
<b>Brief description of audience/stakeholders:</b>	Scientific Community, DRS9 projects representatives, PLACARD Advisory Group
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



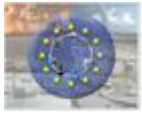
<b>Name:</b>	STREST Final Workshop
<b>Partner Organisation:</b>	NCSR
<b>Type of dissemination activity:</b>	Participation in STREST Project Final Workshop
<b>Title of dissemination activity (where applicable):</b>	Networking with other projects related to CI protection from natural hazards
<b>Date:</b>	16 September 2016
<b>Location:</b>	Ljubljana, Slovenia
<b>Brief abstract/description of dissemination activity:</b>	<p>Participation in STREST project final workshop, where the achieved results of the project were presented and participation from which are funded under the FP7 topics 'Impact of extreme weather on critical infrastructure' and 'Towards stress tests for critical infrastructures against natural hazards' (INFRARISK, INTACT and RAIN). Also the project demonstrated its applicability in large CI that included a petrochemical plant in Milazzo (Italy), large dams at Valais region(Switzerland) and hydrocarbon pipelines in Turkey.</p> <p>Project Title: Harmonized approach to stress tests for critical infrastructures against natural hazards. Acronym: <i>STREST</i>. Project N°: 603389</p>
<b>Brief description of audience/stakeholders:</b>	<p>The workshop was attended by more than 40 participants:</p> <ul style="list-style-type: none"><li>✓ STREST partners and associated industry partners;</li><li>✓ European research projects;</li><li>✓ Operators of critical infrastructures;</li><li>✓ European Chemical Industry Council;</li><li>✓ Research centres &amp; Universities.</li></ul>
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://strest.ethz.ch:8080/opencms/export/sites/default/.content/STREST_public/STREST_D7.7.pdf">http://strest.ethz.ch:8080/opencms/export/sites/default/.content/STREST_public/STREST_D7.7.pdf</a>



<b>Name:</b>	Alen Stranjik, Thanasis Sfetsos
<b>Partner Organisation:</b>	UVG
<b>Type of dissemination activity:</b>	Conference presentation - invited lecture (at opening at 9th International Conference "Crisis Management Days – European Security Environment and Challenges")
<b>Title of dissemination activity (where applicable):</b>	Presentation "Climate Change Impacts On Critical Infrastructures: An Emerging Threat
<b>Date:</b>	12 April 2016
<b>Location:</b>	Split, Croatia
<b>Brief abstract/description of dissemination activity:</b>	<p>The conference organized annually by UVG reflects the need of continuous learning and improving skills activities in the sector of crisis management, while is also confirmation of national strategy, persistence and systematic approach to crisis management issues. Beside local and international experts from academic, business and CI community, regular attendees are government and local authority representatives, crisis management students, journalists and other stakeholders whose professional, academic and research interests fall within the scope of this sector.</p> <p>As this year's conference main topic was related to security challenges in European space, it was excellent opportunity to promote EU Circle project and highlight climate changes as another emerging threat. Therefore organizers ensured strong visibility and attendance of Mr. Sfetsos's presentation just after official opening, where high officials from government, public authorities and universities were gathered.</p>
<b>Brief description of audience/stakeholders:</b>	250 conference participants
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<p><a href="https://www.dropbox.com/sh/gyx4gteotpzj12g/AAC3H1B-p5s7nzdndMJwQyIDa?dl=0">https://www.dropbox.com/sh/gyx4gteotpzj12g/AAC3H1B-p5s7nzdndMJwQyIDa?dl=0</a> (photos)</p> <p><a href="http://www.dku.hr/wp-content/uploads/2016/03/Conference-Programme-CMD.pdf">http://www.dku.hr/wp-content/uploads/2016/03/Conference-Programme-CMD.pdf</a> (conference programme)</p> <p><a href="http://www.gorica.hr/2016/04/goricko-veleuciliste-u-splitu-okupilo-strucnjake-kriznog-upravljanja/">http://www.gorica.hr/2016/04/goricko-veleuciliste-u-splitu-okupilo-strucnjake-kriznog-upravljanja/</a> (press clip from the web site of the City of Velika Gorica)</p>



<b>Name:</b>	Ksenija Cindrić Kalin
<b>Partner Organisation:</b>	DHMZ
<b>Type of dissemination activity:</b>	Participation at the conference: European Geosciences Union (EGU) General Assembly 2016
<b>Title of dissemination activity (where applicable):</b>	
<b>Date:</b>	17-22 April 2016
<b>Location:</b>	Vienna, Austria
<b>Brief abstract/description of dissemination activity:</b>	<p>The annual EGU General Assembly is the largest and most prominent European geosciences event that brings together geoscientists from all over the world into one meeting covering all disciplines of the Earth, planetary and space sciences. In 2016 there were 13,650 scientists from all over the world. The EGU provides a forum where scientists can present their work and discuss their ideas with experts in all fields of the geosciences.</p> <p>Among large number of general topics, I have participated at the sessions with the following topics relevant for the EU-CIRCLE project:</p> <ul style="list-style-type: none"><li>• Interdisciplinary events</li><li>• Climate: Past, Present, Future</li><li>• Energy, Resources and the Environment</li><li>• Hydrological Science</li><li>• Natural Hazards</li></ul>
<b>Brief description of audience/stakeholders:</b>	Scientists from 109 countries
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://egu2016.eu/home.html">http://egu2016.eu/home.html</a> <a href="http://egu2016.eu/programme/how_to_access_the_programme.html">http://egu2016.eu/programme/how_to_access_the_programme.html</a>



<b>Name:</b>	Branka Ivančan-Picek, Alica Bajić, Ksenija Cindrić Kalin, Ivan Güttler, Kristian Horvath, Melita Perčec Tadić
<b>Partner Organisation:</b>	DHMZ
<b>Type of dissemination activity:</b>	9 <sup>th</sup> International Conference “Crisis Management Days – European Security Environment and Challenges” - Conference presentation
<b>Title of dissemination activity (where applicable):</b>	Integration of warnings about weather extremes in disaster risk management
<b>Date:</b>	12-13 April 2016
<b>Location:</b>	Split, Croatia
<b>Brief abstract/description of dissemination activity:</b>	Over 70% of causalities and economic losses caused by different natural hazards in Croatia in a period 1980 – 2012 are directly linked to meteorological and hydrological conditions. Taking this into consideration it becomes clear that information about weather, climate or water related extremes (droughts, floods, windstorms, extreme temperatures, etc.) must be an integral component of any national disaster risk management strategy. It is particularly important to recognise that early warning system (EWS) is not created or operated by a single agency, but requires involvement and cooperation by all stakeholders responsible for different components of the warning system. Meteorological and Hydrological Service (DHMZ) is critical partner within the national institutional structure of EWS, providing data, information, forecasts, warnings and analysis to support all components of EWS. Coordination and cooperation and operational procedures with other technical agencies and the disaster risk management and civil protection agency are required.
<b>Brief description of audience/stakeholders:</b>	Conference participants
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://www.dku.hr/wp-content/uploads/2016/03/Conference-Programme-CMD.pdf">http://www.dku.hr/wp-content/uploads/2016/03/Conference-Programme-CMD.pdf</a>





<b>Name:</b>	Alen Stranjik, Renata Peternel, Vedrana Čemerin
<b>Partner Organisation:</b>	UVG
<b>Type of dissemination activity:</b>	Portals, Facebook, UVG website and Youtube posts
<b>Title of dissemination activity (where applicable):</b>	na
<b>Date:</b>	02/2015-05/2016
<b>Location:</b>	Croatia
<b>Brief abstract/description of dissemination activity:</b>	News about project published on behalf of UVG project team
<b>Brief description of audience/stakeholders:</b>	Local citizens, UVG students and lecturers
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<p><b>Portals</b></p> <p><a href="http://velikagorica.com/vijesti/veleuciliste-14705">http://velikagorica.com/vijesti/veleuciliste-14705</a> (20/02/2015)</p> <p><a href="http://www.lokal.hr/clanak/student-na-prvom-mjestu">http://www.lokal.hr/clanak/student-na-prvom-mjestu</a> (23/03/2015)</p> <p><a href="http://www.24sata.hr/veleuciliste-velika-gorica-totalno-drukciji-od-drugih-418684">http://www.24sata.hr/veleuciliste-velika-gorica-totalno-drukciji-od-drugih-418684</a> (11/05/2015)</p> <p><a href="http://velikagorica.com/vijesti/veleuciliste-18320">http://velikagorica.com/vijesti/veleuciliste-18320</a> (17/07/2015)</p> <p><a href="http://www.kronikevg.com/veleuciliste-sudjeluje-u-projektu-eu-circle-vrijednom-73-milijuna-eura/">http://www.kronikevg.com/veleuciliste-sudjeluje-u-projektu-eu-circle-vrijednom-73-milijuna-eura/</a> (29/07/2015)</p> <p><a href="http://www.vgdanas.hr/Info/Clanak/12875/veleuciliste-velika-gorica-s-partnerima-u-projektu-vrijednom-7-3-mil-eura.aspx">http://www.vgdanas.hr/Info/Clanak/12875/veleuciliste-velika-gorica-s-partnerima-u-projektu-vrijednom-7-3-mil-eura.aspx</a> (24/07/2015)</p> <p><a href="http://www.vgdanas.hr/Info/Clanak/13554/veleuciliste-velika-gorica-sudionik-europskog-projekta-o-utjecaju-klimatskih-promjena.aspx">http://www.vgdanas.hr/Info/Clanak/13554/veleuciliste-velika-gorica-sudionik-europskog-projekta-o-utjecaju-klimatskih-promjena.aspx</a> (20/10/2015)</p> <p><a href="http://www.cityportal.hr/eu-circle/">http://www.cityportal.hr/eu-circle/</a> (20/10/2015)</p> <p><a href="http://www.kronikevg.com/eu-circle-kako-ojacati-otpornost-kriticnih-infrastruktura-na-klimatske-promjene/">http://www.kronikevg.com/eu-circle-kako-ojacati-otpornost-kriticnih-infrastruktura-na-klimatske-promjene/</a> (21/10/2015)</p> <p><a href="http://www.kronikevg.com/veleuciliste-velika-gorica-zeli-pojacati-medunarodnu-znanstvenu-suradnju/">http://www.kronikevg.com/veleuciliste-velika-gorica-zeli-pojacati-medunarodnu-znanstvenu-suradnju/</a> (7/4/2016)</p> <p><a href="http://www.vgdanas.hr/Info/Clanak/15006/vvg-radi-tri-konferencije-dani-kriznog-upravljanja-ove-godine-u-splitu.aspx">http://www.vgdanas.hr/Info/Clanak/15006/vvg-radi-tri-konferencije-dani-kriznog-upravljanja-ove-godine-u-splitu.aspx</a> (8/4/2016)</p> <p><b>UVG website</b></p> <p><a href="http://www.vvg.hr/medjunarodna-suradnja/s13-dogadjanja/c72-novosti/sredstva-iz-eu-fondova-za-projekte-vvg-a-i-duzs-a">http://www.vvg.hr/medjunarodna-suradnja/s13-dogadjanja/c72-novosti/sredstva-iz-eu-fondova-za-projekte-vvg-a-i-duzs-a</a> (20/2/2015)</p> <p><a href="http://www.vvg.hr/eu-projekti/">http://www.vvg.hr/eu-projekti/</a> (06/2015)</p> <p><a href="http://www.vvg.hr/eu-circle/">http://www.vvg.hr/eu-circle/</a> (06/2015)</p>



	<p><a href="http://www.vvg.hr/eu-circle/radni-paketi">http://www.vvg.hr/eu-circle/radni-paketi</a> (06/2015)</p> <p><a href="http://www.vvg.hr/obavijesti-novosti/veleuilite-velika-gorica-s-partnerima-u-projektu-vrijednom-73-mil-eura/">http://www.vvg.hr/obavijesti-novosti/veleuilite-velika-gorica-s-partnerima-u-projektu-vrijednom-73-mil-eura/</a> (17/7/2015)</p> <p><a href="http://www.vvg.hr/vijesti/eu-circle-i-na-rtl-u/">http://www.vvg.hr/vijesti/eu-circle-i-na-rtl-u/</a> (26/10/2015)</p> <p><a href="http://www.vvg.hr/vijesti/cipar-sastanak-partnera-projekta-eu-circle/">http://www.vvg.hr/vijesti/cipar-sastanak-partnera-projekta-eu-circle/</a> (26/11/2015)</p> <p><a href="http://www.vvg.hr/vijesti/eu-projekt-recipe-konferencija-11-i-12-travnja/">http://www.vvg.hr/vijesti/eu-projekt-recipe-konferencija-11-i-12-travnja/</a> (21/1/2016)</p> <p><a href="http://www.vvg.hr/vijesti/htv-na-vvg-u/">http://www.vvg.hr/vijesti/htv-na-vvg-u/</a> (30/3/2016)</p> <p><b>You Tube</b></p> <p><a href="https://www.youtube.com/watch?v=Rcq9QkP58s0">https://www.youtube.com/watch?v=Rcq9QkP58s0</a> (27/10/2015)</p> <p><b>Facebook</b></p> <p><a href="https://www.facebook.com/Velikogoricki/posts/1065410623469912">https://www.facebook.com/Velikogoricki/posts/1065410623469912</a> (29/7/2015)</p> <p><a href="https://www.facebook.com/veleucilistevg/posts/1004061939654100">https://www.facebook.com/veleucilistevg/posts/1004061939654100</a> (27/10/2015)</p> <p><a href="https://www.facebook.com/veleucilistevg/posts/1016967318363562">https://www.facebook.com/veleucilistevg/posts/1016967318363562</a> (27/11/2015)</p>
--	--



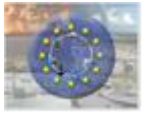
<b>Name:</b>	<b>M.Thayaparan, C.P.Pathirage and U.Kulatunga</b>
<b>Partner Organisation:</b>	University of Salford
<b>Type of dissemination activity:</b>	Workshop
<b>Title of dissemination activity (where applicable):</b>	Disaster Risk Reduction through Vulnerability Assessment and Capacity Building
<b>Date:</b>	5th-6th May 2016
<b>Location:</b>	Selangor, Malaysia
<b>Brief abstract/description of dissemination activity:</b>	Climate Impacts Resilience Dissemination Workshop Session on Critical Infrastructure Vulnerability Presentation: Disaster Risk Reduction through Vulnerability Assessment and Capacity Building
<b>Brief description of audience/stakeholders:</b>	International participants from Malaysia and UK who were: academics, disaster management professionals/ practitioners, local and national government representatives and members of the Disaster management community.
<b>audience/stakeholders:</b>	
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



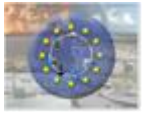
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Krzysztof Kołowrocki
<b>Partner Organisation:</b>	Gdynia Maritime University – GMU
<b>Type of dissemination activity:</b>	3 Workshops
<b>Title of dissemination activity (where applicable):</b>	<p>Titles of Workshops:</p> <p>[1] Soszyńska-Budny J., Sfetsos A., EU-CIRCLE TW 1. Baltic Sea Region Critical Infrastructure Networks.</p> <p>[2] Blokus-Roszkowska A., Sfetsos A., EU-CIRCLE TW 2. General Methodology on Critical Infrastructure Safety Aspects.</p> <p>[3] Kołowrocki K., EU-CIRCLE TW 3. Modelling, Identification and Prediction of Operation Processes and Safety of Complex Systems.</p>
<b>Date:</b>	19-25 June 2016
<b>Location:</b>	Summer Safety and Reliability Seminars - SSARS 2016, Gdansk, Poland <a href="http://ssars.am.gdynia.pl">http://ssars.am.gdynia.pl</a>
<b>Brief abstract/description of dissemination activity:</b>	Presentations at SSARS 2016 and full texts published in JPSRA 2016 (websites attached).
<b>Brief description of audience/stakeholders:</b>	Participants of SSARS 2016. Readers of JPSRA.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<p>SSARS 2016: <a href="http://ssars.am.gdynia.pl">http://ssars.am.gdynia.pl</a></p> <p>JPSRA 2016: <a href="http://jpsra.am.gdynia.pl">http://jpsra.am.gdynia.pl</a></p> <p>Photos: <a href="http://ssars.am.gdynia.pl">http://ssars.am.gdynia.pl</a></p>



<b>Name:</b>	<b>M.Thayaparan, B.I.Ingirige*, C.P.Pathirage, U.Kulatunga and T.Fernando</b> *University of Huddersfield
<b>Partner Organisation:</b>	University of Salford
<b>Type of dissemination activity:</b>	Conference Paper
<b>Title of dissemination activity (where applicable):</b>	<b>A Resilience Framework for Critical Infrastructure</b>
<b>Date:</b>	August 5-7, 2016
<b>Location:</b>	Kandy, Sri Lanka
<b>Brief abstract/description of dissemination activity:</b>	<p>Infrastructures facilitate economic growth, protect human health and the environment and promote welfare and prosperity. Modern societies, therefore, rely heavily on continuous and reliable services provided critical infrastructure. Destructions to the infrastructure can lead to severe economic and social impacts and can also lead to loss of lives. To further complicate matters, modern infrastructures operate as a ‘system of systems’ with many interactions and interdependencies among these systems. Thus damage in one infrastructure system can cascade and result in failures and cascading effects onto all related and dependent infrastructures. To minimise such damages and impacts, it is vital to improve the resilience of critical infrastructure. This paper intends to present a resilience framework for critical infrastructure. Firstly a resilience definition has been established by reviewing the existing definitions. Then existing resilience frameworks were analysed to identity the suitable components for the proposed framework for critical infrastructure. Finally a layered approach framework has been developed to improve the resilience of critical infrastructure. The framework was developed based on comprehensive literature review. It was further validated with stakeholder feedback sessions. The framework consists of 4 layers that are independent and interdependent. Climatic hazards including current and future climate change, infrastructure, their networks and interdependencies, risks and impacts and capacities are the main layers. Each layer will have its unique features and its relationships with other layers. Climatic hazards will contribute to increased risks and impacts. Critical infrastructure is more vulnerable when exposed to climate hazard and uncertainty of climate change and will lead to risks and impacts. The capacities will help to determine the resilience level and will help to reduce the risks and impact. The framework serves as a diagnostic model to determine the existing resilience level of critical infrastructure and to improve the resilience by making necessary changes to the layers.</p>
<b>Brief description of audience/stakeholders:</b>	International conference attendees: academics, disaster management professionals/practitioners, local and national government representatives, humanitarian/non-governmental response agencies



	and members of the Disaster management community.
<b>Name:</b>	Dr. Ralf Hedel
<b>Partner Organisation:</b>	Fraunhofer IVI
<b>Type of dissemination activity:</b>	Presentation
<b>Title of dissemination activity (where applicable):</b>	NATO-Panel: "Systems, Concepts and Integration" (SCI) - 38th Business-Meeting"
<b>Date:</b>	27 October 2016
<b>Location:</b>	Fraunhofer
<b>Brief abstract/description of dissemination activity:</b>	The meeting took place in Dresden at Fraunhofer premises and was part of a visit tour of 40 participants from >20 NATO-member states, researchers and representatives from defense authorities.

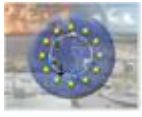


	The whole afternoon was dedicated to present and demonstrate Fraunhofer technologies, expertise and projects. Dr. Ralf Hedel took
<b>Name:</b>	David Stewart
<b>Partner Organisation:</b>	Torbay Council
<b>Type of dissemination activity:</b>	Briefing report to Environment Agency - South West Regional Flood and Coastal Committee
<b>Title of dissemination activity (where applicable):</b>	Torbay Council Update to Committee dated October 2016
<b>Date:</b>	20 <sup>th</sup> October 2016
<b>Location:</b>	Exmouth, Devon
<b>Brief abstract/description of dissemination activity:</b>	As part of the quarterly South West Regional Flood and Coastal Committee meetings I have to produce a report on the works being undertaken by Torbay Council in relation to flooding and coastal matters. Having verbally reported the EU Circle project at a number of previous meetings I was asked to include a briefing about the project in my report for the October 2016 meeting.
<b>Brief description of audience/stakeholders:</b>	Environment Agency Officers, South West Water, Local Authority representatives from Torbay Council, Devon County Council, Cornwall County Council, Plymouth City Council and the Council of the Isles of Scilly, DEFRA, Natural England, Forestry Commission,
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	Copy of briefing report and papers from meeting.





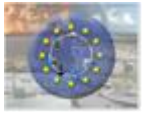
<b>Name:</b>	Midori MILLION, and colleagues
<b>Partner Organisation:</b>	ARTELIA
<b>Type of dissemination activity:</b>	Trade fair
<b>Title of dissemination activity (where applicable):</b>	Pollutec – 27 <sup>th</sup> international trade fair on environmental equipment, technology and services.
<b>Date:</b>	29h nov – 2 <sup>nd</sup> dec 2016
<b>Location:</b>	Lyon (France)
<b>Brief abstract/description of dissemination activity:</b>	Oral presentations of EU-CIRCLE project to visitors and distribution of printed materials (EU CIRCLE newsletter)
<b>Brief description of audience/stakeholders:</b>	60 000 visitors of which 20% public/80% private sector, 85% French/15% international) <a href="http://www.pollutec.com/Exposer/Presentation-du-salon/Qui-visite.htm">http://www.pollutec.com/Exposer/Presentation-du-salon/Qui-visite.htm</a>
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://www.pollutec.com/Visiter/Les-Exposants-2016/Fiche-exposant-2016---nouvelle-ergonomie,ARTELIA-EAU--ENVIRONNEMENT-5743381.htm">http://www.pollutec.com/Visiter/Les-Exposants-2016/Fiche-exposant-2016---nouvelle-ergonomie,ARTELIA-EAU--ENVIRONNEMENT-5743381.htm</a> photos will follow



<b>Name:</b>	D'Appolonia, Clemente Fuggini
<b>Partner Organisation:</b>	IDEA – Improving Damage assessments to Enhance cost-benefit Analyses
<b>Type of dissemination activity:</b>	Presentation to the Workshop “Using post-disaster damage data to enhance our capacity to recover and learn lessons together”
<b>Title of dissemination activity (where applicable):</b>	Estimating costs of the impact of natural extremes for critical infrastructures. Perspectives from the EU-CIRCLE Horizon 2020 project
<b>Date:</b>	29th November 2016
<b>Location:</b>	Politecnico di Milano, Milan
<b>Brief abstract/description of dissemination activity:</b>	Brief introduction of EU-CIRCLE project and description of the Risk management & risk modelling process in EU-CIRCLE together with the EU-CIRCLE Resilience Framework.
<b>Brief description of audience/stakeholders:</b>	Italian Regional Civil Protection, DG-ECHO (Institutional organisation), Researcher in Critical infrastructures
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	In attachment the agenda and the presentation.



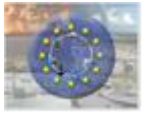
<b>Name:</b>	Krzysztof Kołowrocki
<b>Partner Organisation:</b>	Gdynia Maritime University – GMU
<b>Type of dissemination activity:</b>	9th Summer Safety and Reliability Seminars – SSARS 2015
<b>Title of dissemination activity (where applicable):</b>	List of titles of 9 presentations is given in the GMU Report “WP9-Task9.1-D9.2-GMU1-V1.0-EU-CIRCLE GMU ACTIVITY – Project 18 months” (attached).
<b>Date:</b>	21-27 June 2015
<b>Location:</b>	Golden Tulip Residence, Gdansk, Poland <a href="http://ssars.am.gdynia.pl">http://ssars.am.gdynia.pl</a>
<b>Brief abstract/description of dissemination activity:</b>	Titles of presentations are given in the SSARS 2015. Full texts of presentations are published at Journal of Polish Safety and Reliability Association – JPSRA, Volume 6, 2015 website with acknowledgement to EU-CIRCLE project. (websites attached).
<b>Brief description of audience/stakeholders:</b>	Participants of SSARS 2015.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	“WP9-Task9.1-D9.2-GMU1-V1.0-EU-CIRCLE GMU ACTIVITY – Project 18 months” SSARS 2015 Programme <a href="http://ssars.am.gdynia.pl">http://ssars.am.gdynia.pl</a> JPSRA, Volume 6, 2015, <a href="http://ipsra.am.gdynia.pl">http://ipsra.am.gdynia.pl</a> Photos: <a href="http://ssars.am.gdynia.pl">http://ssars.am.gdynia.pl</a>



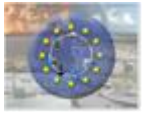
<b>Name:</b>	<b>Chaminda Pathirage, Bingu Ingirige and Khalifa Al Khaili</b>
<b>Partner Organisation:</b>	University of Salford
<b>Type of dissemination activity:</b>	Conference Paper
<b>Title of dissemination activity (where applicable):</b>	Knowledge Sharing on Critical Energy Infrastructure Facilities for Improved Disaster Resilience
<b>Date:</b>	August 27 <sup>th</sup> , 2015
<b>Location:</b>	Seoul, South Korea
<b>Brief abstract/description of dissemination activity:</b>	<p>Major disruptions on infrastructure facilities due to natural or man-made hazards could result in secondary and further doubled up impact on the communities due to the fact that the impact on infrastructure creates a vicious cycle, amplifying the impact of the disaster to the affected community. There are certain “critical” elements of national infrastructure that loss or compromise of which would have a major impact on society. The energy sector is a critical component of any modern society. As the demand for electricity and energy grows, so do the complexity of the system and the need to protect it. There is a conscious effort for disaster management at national, provincial and sub-provincial level. Despite this, knowledge appears fragmented, although there are undoubtedly many successful practices and lessons to be learned.</p>
<b>Brief description of audience/stakeholders:</b>	<p>International conference attendees: academics, disaster management professionals/practitioners, local and national government representatives, humanitarian/non-governmental response agencies and members of the Disaster management community.</p>
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<p><a href="http://i3r2.uos.ac.kr/joint-special-session/ss-on-cities-infrastructure-and-cascading-natural-disasters/">http://i3r2.uos.ac.kr/joint-special-session/ss-on-cities-infrastructure-and-cascading-natural-disasters/</a></p>



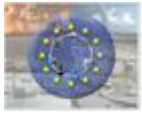
<b>Name:</b>	Melita Perčec Tadić, Branka Ivančan-Picek, Alica Bajić
<b>Partner Organisation:</b>	DHMZ
<b>Type of dissemination activity:</b>	Conference presentation
<b>Title of dissemination activity (where applicable):</b>	<b>15th EMS Annual Meeting &amp; 12th European Conference on Applications of Meteorology (ECAM)</b> "Risk assessment from natural hazards in Croatia"
<b>Date:</b>	<b>7–11 September 2015</b>
<b>Location:</b>	<b>Sofia, Bulgaria</b>
<b>Brief abstract/description of dissemination activity:</b>	<p>Biannual conference in the field of meteorology, climatology, environmental risks with the focus on applications.</p> <p>Several public and research authorities in Croatia were involved in risk assessment for natural but also industrial hazards. The hazards that are investigated are: (a) floods and droughts, (b) animal and plant diseases and epidemics, (c) snow and icing, (d) extreme temperature, (e) industrial hazards, (f) earthquakes and (g) open fires whereas the Meteorological and hydrological service of Croatia is leading the risk assessment group for snow and icing related hazards. Especially devastating was the icing episode in February 2014 in the Gorski kotar mountain region. The damage on power systems, forests and vegetation was more than 300 mil. Euros. There was a power supply failure and road and railway transport failure. Railroad Zagreb-Rijeka was closed for five days due to ice load and falling trees breaking the electrical lines. The most devastated was one of the counties where the damage reached 10-years county budget. The EU Solidarity fund approved 135 mil. Euros for the reparation. For this risk assessment the scenarios of the most probable and the most devastating damages are prepared. The next step is risk mapping. The research projects and academic literature on the subject of risk mapping confirm its complexity and the fact that gaps remain in the methodologies. We are following the EC recommendations to prepare: (a) maps showing the expected spatial distribution of major hazards, (b) maps showing the spatial distribution of all relevant elements that need to be protected, (c) maps of the spatial distribution of vulnerability in terms of susceptibility to damage for all relevant subjects of protection. For this year WMO is also preparing important actions and agreements regarding the risk assessment and mitigation.</p>
<b>Brief description of audience/stakeholders:</b>	professionals, researchers, students, users, instruments providers
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://www.ems2015.eu">www.ems2015.eu</a>



<b>Name:</b>	EUCONCIP Opening Conference
<b>Partner Organisation:</b>	KEMEA
<b>Type of dissemination activity:</b>	Conference
<b>Title of dissemination activity (where applicable):</b>	
<b>Date:</b>	20/10/2015
<b>Location:</b>	Rome, Italy
<b>Brief abstract/description of dissemination activity:</b>	The EUCONCIP Opening Conference, held on October 20th 2015 at UNINT (Università degli Studi Internazionali di Roma) aimed at introducing EUCONCIP to the CIP community and at providing stakeholders related to the field of CIP with a networking opportunity. Engagement in discussions with CI operators and CIP authorities (ARPIC, PESI) concerning CC aspects of CIRP. Similarly with Researchers (ENEA, University of Rome, Politecnico di Milano) regarding their potential involvement in the EU-CIRCLE external community
<b>Brief description of audience/stakeholders:</b>	Scientists, Practitioners
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://euconcip.org/index.php/news-archive/92-euconcip-opening-conference-october-20th-2015">http://euconcip.org/index.php/news-archive/92-euconcip-opening-conference-october-20th-2015</a>

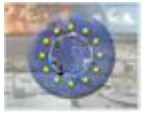


<b>Name:</b>	Prevention, detection, response and mitigation of the combination of physical and cyber threats to the critical infrastructure of Europe
<b>Partner Organisation:</b>	KEMEA
<b>Type of dissemination activity:</b>	Workshop/Infoday
<b>Title of dissemination activity (where applicable):</b>	H2020-SEC-2016-CIP for Critical Infrastructure Protection
<b>Date:</b>	8/3/2016
<b>Location:</b>	Bilbao, Spain ( Universidad de Deusto, Auditorio Icaza)
<b>Brief abstract/description of dissemination activity:</b>	<p>On 8 March 2016, KEMEA attended in Bilbao the Infoday H2020-SEC-2016-CIP about Critical Infrastructure Protection (2016 Secure Societies call - H2020), organized by PESI and CDTI.</p> <p>During the morning session, complete information about topic CIP-01-2016 was provided by EC representatives. Participants had the opportunity to present their capacities, their relative work and their experience. KEMEA exchanged with the participants a number of ideas extending the EU-CIRCLE objectives, which relates the resilience of critical infrastructures with climate extremes, towards the holistic management of resilience, associated to societal impacts.</p> <p>During the afternoon, KEMEA attended a Brokerage event with a group focusing to the resilience of "Transport Infrastructures". We had there the opportunity to meet with other private and public stakeholders relevant to the transport sector and exchange views on how results of past and ongoing research results can be further exploited in context of the 2016 CIP call of Security. The attendance to this event was related to KEMEA dissemination and exploitation activity for EU-CIRCLE.</p>
<b>Brief description of audience/stakeholders:</b>	Experts, Stakeholders, Researchers, etc from Spain, UK, Norway, France, Italy, Turkey, Slovakia, Greece
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="https://goo.gl/njzOLO">https://goo.gl/njzOLO</a>



<b>Name:</b>	EARTO meeting
<b>Partner Organisation:</b>	KEMEA
<b>Type of dissemination activity:</b>	Meeting
<b>Title of dissemination activity (where applicable):</b>	
<b>Date:</b>	13 - 14/4/2016
<b>Location:</b>	Kista, Sweden
<b>Brief abstract/description of dissemination activity:</b>	KEMEA presented the CIP related activity of the Centre, focusing to EU-CIRCLE, in context of a regular meeting of the European Association of RTOs. In the meeting the participating RTOs representatives present their actual and focused RTD activity and exchange ideas for synergy and eventual cooperation between the respective research teams.
<b>Brief description of audience/stakeholders:</b>	Research Organisations from EU (CEA, FRAUNHOFER, AIT, TECNALIA, FOI, VICOMTECH, TNO, KEMEA, DIGITAL CATAPULT)
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	





<b>Name:</b>	VITEX exercise
<b>Partner Organisation:</b>	KEMEA
<b>Type of dissemination activity:</b>	Training exercise
<b>Title of dissemination activity (where applicable):</b>	VITEX 2016
<b>Date:</b>	11-12/5/2016
<b>Location:</b>	Amersfoort, Netherlands
<b>Brief abstract/description of dissemination activity:</b>	<p>In context of the Dutch Presidency of the EU, NCTV (NCP for CIP in Netherlands) has organised a large table top exercise (TTX), aiming to train the participants on how to manage and address risks and problems concerning trans-border issues of CIP networks in EU. The scenario of the exercise considered a large-scale black-out with impact to several EU countries. KEMEA participated as observer and expert in the TTX. In combination with the TTX, a round table involving representatives of national and regional authorities, civil protection organizations, CI operators, researchers and academics was organized focusing to exchange of ideas, initiatives and on-going efforts towards the resilience of European critical infrastructures. KEMEA was involved in this discussion and arranged also the participation of representatives of the Greek Power Company (DEI) and the National Power Grid TSO and DSO. For this purpose, KEMEA has organized together with NCSR D a meeting with the Energy CI operators in KEMEA offices the 19/4/2016. The aim was to inform them concerning EU-CIRCLE objectives and planned results and to investigate their relative interest and eventual requirements.</p> <p>Discussions for organizing a relative TTX focusing to climate change and build on the EU-CIRCLE development started in context of VITEX with JRC Ispra. NCTV (the organizers) were invited to the EU-CIRCLE consolidated workshop to contribute their relevant expertise.</p>
<b>Brief description of audience/stakeholders:</b>	International participation from EU countries with observers from US, Australia and China. The event was attended by NCP representatives for CIP (in context of EPCIP) from most of the member states.



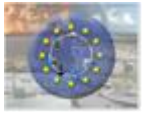
**Attachments (e.g. photo(s), link,  
PDF of newspaper clipping):**



<https://goo.gl/cBKBgh>



<b>Name:</b>	EARTO meeting
<b>Partner Organisation:</b>	KEMEA
<b>Type of dissemination activity:</b>	Meeting
<b>Title of dissemination activity (where applicable):</b>	
<b>Date:</b>	16-17/6/2016
<b>Location:</b>	Brussels, Belgium
<b>Brief abstract/description of dissemination activity:</b>	Discussions between members and invited guests during the regular EARTO meeting aiming to exchange knowledge, experience and lessons learned on how RTOs may collaborate with end users and security practitioners throughout Europe. Issues and options concerning the involvement of CI operators in context of the European Research and the specific Security Call (2016/17) were discussed during this meeting.
<b>Brief description of audience/stakeholders:</b>	Research and Technology Organisations from EU (CEA (F), TNO (NL), Fraunhofer (GER), AIT (AT), VTT, Digital Catapult (UK), Tecnalia, Vicomtech, Eurotec, iMinds (ES), SCCH (AT), D'Appolonia (I)), organizations like EDA and SEREN3 and DG Home representative.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Pilot Course for Mid-Career Security Managers in Critical Infrastructure Protection and Resilience
<b>Partner Organisation:</b>	KEMEA
<b>Type of dissemination activity:</b>	Course
<b>Title of dissemination activity (where applicable):</b>	
<b>Date:</b>	21-23/6/2016
<b>Location:</b>	Brussels, Belgium
<b>Brief abstract/description of dissemination activity:</b>	The European Reference Network for Critical Infrastructure Protection (ERNICIP), in close collaboration with the EC Directorate General for Migration and Home Affairs, organised the course, which covered case studies concerning the Transport and Energy sector. The event was co-organized by the Security Technology Assessment Unit (STA Unit) of JRC Ispra and KEMEA elaborated with the organizers the potential cooperation for a relevant EU-CIRCLE training exercise concerning EU-CIRCLE findings. Discussions made with key experts CI operators from Netherland and Austria to join the EU-CIRCLE SAG.
<b>Brief description of audience/stakeholders:</b>	The Course is tied to the Operators' functional requirement for the qualification of security experts. CI operators from Italy, Austria, Albania, Greece, Romania, France, Netherlands, Germany, Spain.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="https://ec.europa.eu/jrc/en/event/training-course/cip-training-course">https://ec.europa.eu/jrc/en/event/training-course/cip-training-course</a>



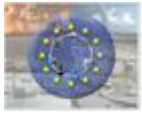
<b>Name:</b>	Albert Chen
<b>Partner Organisation:</b>	University of Exeter - UNEXE
<b>Type of dissemination activity:</b>	Public engagement
<b>Title of dissemination activity (where applicable):</b>	FloodHack
<b>Date:</b>	16-17 Jan 2016
<b>Location:</b>	Reading, UK
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen attended FloodHack organised by ECMWF The team Albert Chen was a member of won the First Winner's Prize.
<b>Brief description of audience/stakeholders:</b>	Around 30 international researchers at RMS.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="https://floodhack.devpost.com/submissions">https://floodhack.devpost.com/submissions</a> <a href="http://www.exeter.ac.uk/news/staff/title_492678_en.html">http://www.exeter.ac.uk/news/staff/title_492678_en.html</a> <a href="https://storify.com/CopernicusECMWF/floodhack">https://storify.com/CopernicusECMWF/floodhack</a> <a href="http://www.theexeterdaily.co.uk/news/business-daily-local-news/exeter-dr-helps-create-flood-awareness-app">http://www.theexeterdaily.co.uk/news/business-daily-local-news/exeter-dr-helps-create-flood-awareness-app</a>



<b>Name:</b>	Dragan Savic
<b>Partner Organisation:</b>	University of Exeter - UNEXE
<b>Type of dissemination activity:</b>	Conference presentation
<b>Title of dissemination activity (where applicable):</b>	Keynote at Hydroinformatics 2016
<b>Date:</b>	24 August 2016
<b>Location:</b>	Incheon, South Korea
<b>Brief abstract/description of dissemination activity:</b>	Dragan Savic was invited to give a keynote lecture at Hydroinformatics 2016.
<b>Brief description of audience/stakeholders:</b>	More than 200 global audiences from academics and industry attended HIC 2016.

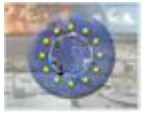


<b>Name:</b>	Albert Chen
<b>Partner Organisation:</b>	University of Exeter - UNEXE
<b>Type of dissemination activity:</b>	Public engagement
<b>Title of dissemination activity (where applicable):</b>	Liberal Democrat Party Spring Conference
<b>Date:</b>	12 March 2016
<b>Location:</b>	York, UK
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen was invited to give a seminar talk at RMS, London, UK.
<b>Brief description of audience/stakeholders:</b>	Around 100 general public audience attended the talk.



<b>Name:</b>	Albert S. Chen
<b>Partner Organisation:</b>	University of Exeter - UNEXE
<b>Type of dissemination activity:</b>	Public engagement
<b>Title of dissemination activity (where applicable):</b>	Seminar presentation to global insurance industry
<b>Date:</b>	4 April 2016
<b>Location:</b>	RMS
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen was invited to give a seminar talk at RMS, London, UK.
<b>Brief description of audience/stakeholders:</b>	Around 20 researchers at RMS.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="https://www.facebook.com/events/1675077222780378/">https://www.facebook.com/events/1675077222780378/</a> <a href="https://twitter.com/AldesLibDems/status/708682032596033536">https://twitter.com/AldesLibDems/status/708682032596033536</a>

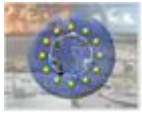




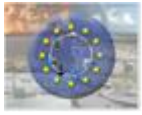
<b>Name:</b>	Albert Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Public engagement
<b>Title of dissemination activity (where applicable):</b>	Seminar at RMS
<b>Date:</b>	4 April 2016
<b>Location:</b>	London, UK
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen was invited to give a seminar talk at RMS, a key stakeholder in global insurance industry.
<b>Brief description of audience/stakeholders:</b>	Around 20 researchers at RMS.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Albert Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Education
<b>Title of dissemination activity (where applicable):</b>	Lecture
<b>Date:</b>	12 April 2016
<b>Location:</b>	Exeter, UK
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen gave a lecture to postgraduate students.
<b>Brief description of audience/stakeholders:</b>	30 students attended the lecture.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



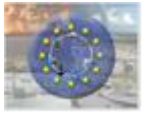
<b>Name:</b>	Dragan Savic and Albert Chen
<b>Partner Organisation:</b>	University of Exeter – UNEXE
<b>Type of dissemination activity:</b>	Research exploitation
<b>Title of dissemination activity (where applicable):</b>	Workshop at Tsinghua University
<b>Date:</b>	18-19 April 2016
<b>Location:</b>	Beijing, China
<b>Brief abstract/description of dissemination activity:</b>	Dragan Savic and Albert Chen attended workshop at Tsinghua University.
<b>Brief description of audience/stakeholders:</b>	30 attendees from universities, research institutes, government agencies, industry companies and British Council.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	 



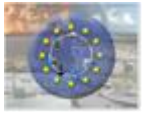
<b>Name:</b>	Albert Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Public engagement
<b>Title of dissemination activity (where applicable):</b>	Seminar at RMS
<b>Date:</b>	4 April 2016
<b>Location:</b>	London, UK
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen was invited to give a seminar talk at RMS, a key stakeholder in global insurance industry.
<b>Brief description of audience/stakeholders:</b>	Around 20 researchers at RMS.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



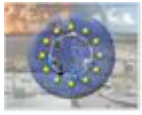
<b>Name:</b>	Albert Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Public engagement
<b>Title of dissemination activity (where applicable):</b>	Seminar at RMS
<b>Date:</b>	4 April 2016
<b>Location:</b>	London, UK
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen was invited to give a seminar talk at RMS, a key stakeholder in global insurance industry.
<b>Brief description of audience/stakeholders:</b>	Around 20 researchers at RMS.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Albert Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Public engagement
<b>Title of dissemination activity (where applicable):</b>	Seminar at RMS
<b>Date:</b>	4 April 2016
<b>Location:</b>	London, UK
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen was invited to give a seminar talk at RMS, a key stakeholder in global insurance industry.
<b>Brief description of audience/stakeholders:</b>	Around 20 researchers at RMS.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	

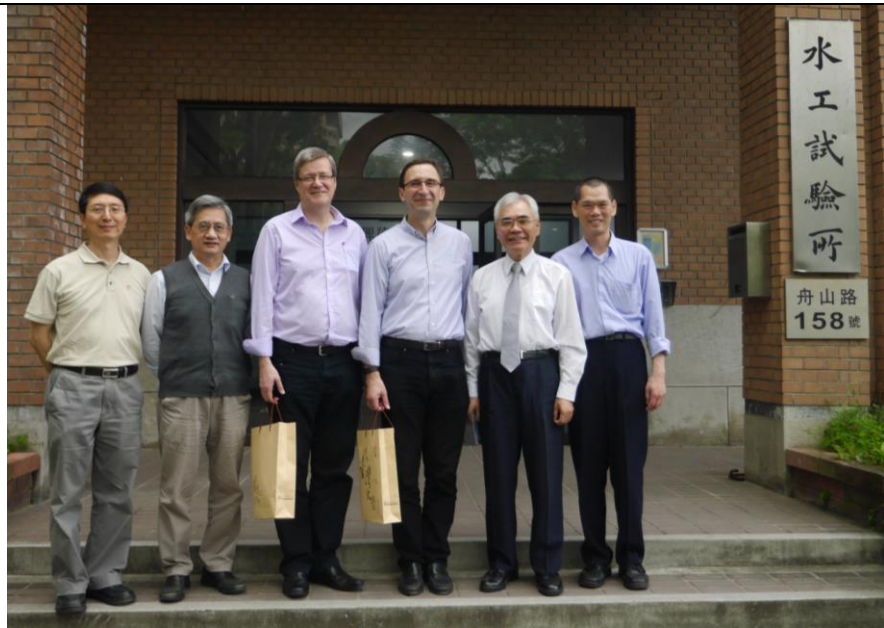


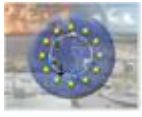
<b>Name:</b>	Dragan Savic and Albert Chen
<b>Partner Organisation:</b>	University of Exeter – UNEXE
<b>Type of dissemination activity:</b>	Research exploitation
<b>Title of dissemination activity (where applicable):</b>	Meetings at Taiwan Typhoon and Flood Research Institute (TTFRI), National Science and Technology Center for Disaster Reduction (NCDR), and National Taiwan University
<b>Date:</b>	21-22 April 2016
<b>Location:</b>	Taipei, Taiwan
<b>Brief abstract/description of dissemination activity:</b>	Dragan Savic and Albert Chen visited TTFRI, NCDR and NTU, presented the EU-CIRCLE work and discussed about the possibility for further collaboration.
<b>Brief description of audience/stakeholders:</b>	Academic researchers from TTFRI, NCDR and NTU.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Dragan Savic and Albert Chen
<b>Partner Organisation:</b>	University of Exeter – UNEXE
<b>Type of dissemination activity:</b>	Research exploitation
<b>Title of dissemination activity (where applicable):</b>	Meetings at Taiwan Typhoon and Flood Research Institute (TTFRI), National Science and Technology Center for Disaster Reduction (NCDR), and National Taiwan University (NTU)
<b>Date:</b>	21-22 April 2016
<b>Location:</b>	Taipei, Taiwan
<b>Brief abstract/description of dissemination activity:</b>	Dragan Savic and Albert Chen visited TTFRI, NCDR and NTU, presented the EU-CIRCLE work and discussed about the possibility for further collaboration.
<b>Brief description of audience/stakeholders:</b>	Meetings and discussions with more than 20 academic researchers from TTFRI, NCDR and NTU.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	 







<b>Name:</b>	Albert S. Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Seminar
<b>Title of dissemination activity (where applicable):</b>	Seminar presentation to global insurance industry
<b>Date:</b>	4 April 2016
<b>Location:</b>	RMS
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen was invited to give a seminar talk at RMS, London, UK.
<b>Brief description of audience/stakeholders:</b>	Around 20 researchers at RMS.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Albert Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Conference presentation and engagement
<b>Title of dissemination activity (where applicable):</b>	EUSTO Final Conference
<b>Date:</b>	12 May 2016
<b>Location:</b>	Dresden, Germany
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen presented at EUSTO Final Conference and discussed with participants regarding climate impact to transportation network.
<b>Brief description of audience/stakeholders:</b>	Around 50 global attendees with academic or industrial background.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



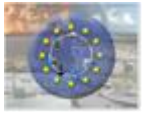
<b>Name:</b>	Lydia Vamvakeridou-Lyroudia
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Conference and brokerage event
<b>Title of dissemination activity (where applicable):</b>	Water Innovation Europe 2016
<b>Date:</b>	21-22 June 2016
<b>Location:</b>	Brussels, Belgium
<b>Brief abstract/description of dissemination activity:</b>	Booth participation (through the ict4water cluster booth), presentation at the water platform working groups
<b>Brief description of audience/stakeholders:</b>	Around 100 attendees from the industry, academia and public organisations
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



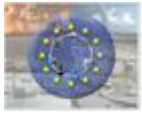
<b>Name:</b>	Albert S. Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Conference presentation and engagement
<b>Title of dissemination activity (where applicable):</b>	RMetS/NCAS Conference 2016   Royal Meteorological Society
<b>Date:</b>	6-8 July 2016
<b>Location:</b>	Manchester, UK
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen presented at the conference and discussed with participants for potential further collaborations.
<b>Brief description of audience/stakeholders:</b>	Around 200 international attendees with academics, industrial background.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Albert S. Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Education
<b>Title of dissemination activity (where applicable):</b>	University of Exeter International Summer School
<b>Date:</b>	12 July 2016
<b>Location:</b>	Exeter, UK
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen delivered lectures on Global Climate Change: Environment, Technology and Society.
<b>Brief description of audience/stakeholders:</b>	Around 30 international undergraduate students from a variety of backgrounds.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://www.exeter.ac.uk/international/summerschool/academic/climatechange/">http://www.exeter.ac.uk/international/summerschool/academic/climatechange/</a>

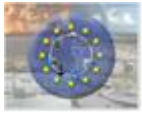


<b>Name:</b>	Dragan Savic, Albert S. Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Keynote at major international conference and engagement
<b>Title of dissemination activity (where applicable):</b>	Hydroinfomatics 2016
<b>Date:</b>	22-26 August 2016
<b>Location:</b>	Incheon, South Korea
<b>Brief abstract/description of dissemination activity:</b>	Dragan Savic gave keynote lecture at Hydroinfomatics 2016 Dragan Savic and Albert Chen discussed with participants for collaboration ideas.
<b>Brief description of audience/stakeholders:</b>	Around 300 global attendees with academics, industrial background.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	
<b>PDF of newspaper clipping):</b>	



<b>Name:</b>	Dragan Savic
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Keynote at major international industrial exhibitions
<b>Title of dissemination activity (where applicable):</b>	Flood Expo 2016
<b>Date:</b>	12 Oct 2016
<b>Location:</b>	Incheon, South Korea
<b>Brief abstract/description of dissemination activity:</b>	Dragan Savic gave keynote lecture at FloodExpo 2016
<b>Brief description of audience/stakeholders:</b>	Around 500 global attendees, mainly from industry.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	<a href="http://www.thefloodexpo.co.uk/speakers/professor-dragan-savic/">http://www.thefloodexpo.co.uk/speakers/professor-dragan-savic/</a>





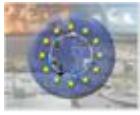
<b>Name:</b>	Dragan Savic, Slobodan Djordjevic, Albert Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Workshop
<b>Title of dissemination activity (where applicable):</b>	Global Innovation Initiative workshop
<b>Date:</b>	24-25 Oct 2016
<b>Location:</b>	Orlando, USA
<b>Brief abstract/description of dissemination activity:</b>	UNEXE discussed with international partners on flooding impact to critical infrastructure
<b>Brief description of audience/stakeholders:</b>	13 participants from UK, US, China and Mexico
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	

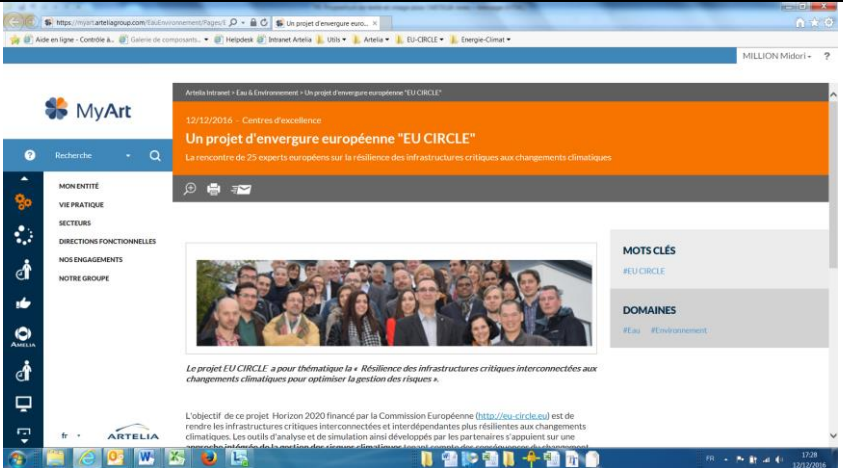


<b>Name:</b>	Albert Chen
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Conference presentation and public engagement
<b>Title of dissemination activity (where applicable):</b>	12th International Conference on Hydrosience & Engineering
<b>Date:</b>	6-10 Nov 2016
<b>Location:</b>	Tainan, Taiwan
<b>Brief abstract/description of dissemination activity:</b>	Albert Chen presented at 12ICHE and discussed with potential collaboration partners.
<b>Brief description of audience/stakeholders:</b>	200 international audiences from academic, industry and government agencies.
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



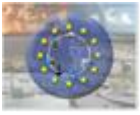
<b>Name:</b>	Lydia Vamvakeridou-Lyroudia
<b>Partner Organisation:</b>	University of Exeter
<b>Type of dissemination activity:</b>	Workshop
<b>Title of dissemination activity (where applicable):</b>	WEFE workshop UK-China
<b>Date:</b>	21-22 Nov 2016
<b>Location:</b>	Exeter, UK
<b>Brief abstract/description of dissemination activity:</b>	Workshop organised by the Environment and Sustainability Institute (UNEXE/ESI) with selected representatives of Y  UK research groups and China representatives from the academia, to discuss the possibilities of future collaboration in UK/China research projects.
<b>Brief description of audience/stakeholders:</b>	About 10 representatives from the UK academia and an equal number from China (closed group-by invitation only)
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Catherine Freissinet, Jean Lecroart, Midori Million
<b>Partner Organisation:</b>	ARTELIA
<b>Type of dissemination activity:</b>	Website (ARTELIA intranet)
<b>Title of dissemination activity (where applicable):</b>	
<b>Date:</b>	12/12/2016
<b>Location:</b>	Website (worldwide)
<b>Brief abstract/description of dissemination activity:</b>	Update on EU-CIRCLE Project through Artelia group's internal website
<b>Brief description of audience/stakeholders:</b>	3500 people worldwide (ARTELIA group staff)
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	



<b>Name:</b>	Krzysztof Kołowrocki
<b>Partner Organisation:</b>	Gdynia Maritime University – GMU
<b>Type of dissemination activity:</b>	Symposium/Workshop organized by K. Kołowrocki and J. Soszyńska-Budny
<b>Title of dissemination activity (where applicable):</b>	Safety of Critical Infrastructures
<b>Date:</b>	23-29 September 2015
<b>Location:</b>	The International Conference of Numerical Analysis and Applied Mathematics - ICNAAM 2015 Symposium/Workshop on Safety of Critical Infrastructures, Rhodes, Greece, 2015 <a href="http://history.icnaam.org/icnaam_2015/index-2.html">http://history.icnaam.org/icnaam_2015/index-2.html</a>
<b>Brief abstract/description of dissemination activity:</b>	Titles of 5 presentations, abstracts and full texts with acknowledgement to EU-CIRCLE project are given in the ICNAAM 2015 Proceedings and at the Conference website.
<b>Brief description of audience/stakeholders:</b>	Participants of ICNAAM 2015
<b>Attachments (e.g. photo(s), link, PDF of newspaper clipping):</b>	ICNAAM 2015 website: <a href="http://history.icnaam.org/icnaam_2015/index-2.htm">http://history.icnaam.org/icnaam_2015/index-2.htm</a>



## EU-CIRCLE project presentation

EU-CIRCLE was presented in the “Workshop for Critical Infrastructure Protection” jointly organized by KEMEA and JRC in Athens 14&15<sup>th</sup> December 2015. The audience of the workshop included more than 150 representatives from the Greek critical infrastructures and National competent authorities

