

# **EU-CIRCLE**

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

# **D8.1 DISSEMINATION AND EXPLOITATION PLAN**

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#### Statement

This Dissemination and Exploitation plan (deliverable 8.1) describes the planning and deliverables for the EU-CIRCLE project. The plan is made definitive in M3 of the project, and will be updated at M12, and M24. It is drafted by the WP leader EUC, and seen and approved by all EU-CIRCLE partners.

M1	M7	M13	M19	M25	M31	M36
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List here the changes and their rational for each release



# **Executive Summary**

This is the Consolidated Dissemination & Exploitation Plan (D&E Plan) of the EU-sponsored EU-CIRCLE program. This Plan is structured as follows:

- Section 1: Introduction
- Section 2: Overview of EU-CIRCLE
- Section 3: Dissemination and Exploitation Plan
- Section 4: EU-CIRCLE Communication channels and Roadmap
- Section 5: 20 Partner Organisation's dissemination plans
- Section 6: Evaluation and reporting
- Section 7: Conclusion

EU-CIRCLE aims to establish an innovative framework for enhancing the resilience of European Critical Infrastructures (CI) to present natural hazards and to future impacts of climate change (more detailed information can be found in section 2 of this plan). The project will develop a validated Climate Infrastructure Resilience Platform (CIRP) that will:

- Assess potential impacts of climate hazards.
- Provide monitoring through new resilience indicators.
- Support cost-efficient adaptation measures.

The EU-CIRCLE framework will leverage the vast amount of existing knowledge generated in climate research and provide an open-source web-based solution customizable to addressing CI community requirements; either in responding to short-term hazards and extreme weather events or in establishing the most effective long term adaptation measures. 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, EU-CIRCLE will establish two unique technological features that will greatly facilitate its dissemination and exploitation potential:

- The Simulating Interconnected (Critical) Infrastructures (SimICI), a reference virtual environment for assessing the resilience of infrastructures to climatic pressures.
- The Open Call for effective contribution to CIRP.

The dissemination (as described in section 3 of the D&E plan) is organised at the overall project level, as well as at the level of the individual participating organizations. In EU-CIRCLE 20 European Organisations from 9 countries participate, with the National Center for Scientific Research "Demokritos" being the Project Coordinator. In section 5 of this plan all Participating organizations, their profiles and dissemination plans are listed. In section 3, the D&E Plan identifies specific target groups with specific deliverable aimed at these target groups. The plan defines the following at the EU-CIRCLE consortium level, as well as at the level of the individual partners:

- Audience and target groups (section 3.2).
- The main message(s) and objective(s) for dissemination (section 3.3, and Table 2).
- The activities and requirements.
- The type of communication channels that will be used (section 4).
- The expected results of the dissemination and exploitation activities (section 6).



At the project level a website (http://www.eu-circle.eu/wp/), social media presence, bi-annual newsletters and scientific (open access) papers and conference proceedings will be available. A final workshop will bring together all results and data from the project.

To stimulate the Dissemination and the mutual contact between the Partner organisations on the issue of dissemination a Communication team has been established, in which all Partners are being represented (see Table 1).

The D&E plan identifies Key Performance Indicators (KPI's) for the evaluation of all overall project dissemination activities (see section 6, Table 6).

This plan will be revised and updated every year. The plan is maintained through the lifetime of the project. Updates of the initial plan (at M12, M24) will be included in the periodic activity reports.

This D&E Plan has been drafted by EUC, with input from all Partner Organizations. The final plan has the consent of all Partners.



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# 1 Introduction

Communication and dissemination are integral facets of the EU-CIRCLE research activity; these actions are vital in raising awareness and promoting the impact and added value of the project. The impact and added value of EU-CIRCLE will be increasingly highlighted by the dissemination activities and given prominence by funding agencies, research institutions and the general public. <sup>1</sup>

In EU-CIRCLE the dissemination of the project's results and impact is focussing on:

- Drawing the attention of national governments, regional authorities and other public and private funding sources.
- Attract the interest of potential partners, and invite them to participate with their own technologies and models in the final case study of the project.
- Enhance EU-CIRCLE's reputation and visibility at local, national and international levels.

Cognisant of the benefits of communicating and disseminating research results and the importance placed by the European Commission on such activities, the EU-CIRCLE consortium has developed a dissemination and exploitation plan which will guide it throughout the duration of the project and beyond.

# 1.1 Aim of the Dissemination and Exploitation Plan

The aim of the dissemination and exploitation plan is to steer the dissemination and exploitation activities of the project to maximise results. The plan defines the following at the EU-CIRCLE consortium level, as well as at the level of the individual partners:

- Audience and target groups.
- The main message(s) and objective(s) for dissemination.
- The activities and requirements.
- The type of communication channels that will be used.
- The expected results of the dissemination and exploitation activities.

The plan defines the documentation to be used by the consortium and the project partners to present the project scope and results in various dissemination and exploitation activities along with specific timelines, responsibilities and budget provisions.

#### 1.2 Structure

The remaining document is structured as follows:

- Section 2: Overview of EU-CIRCLE
- Section 3: Dissemination and Exploitation Plan
- Section 4: EU-CIRCLE Communication channels and Roadmap
- Section 5: 20 Partner Organisation's dissemination plans
- Section 6: Evaluation and reporting
- Section 7: Conclusion

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<sup>&</sup>lt;sup>1</sup> EC decision C (2014)4995



# 2 Overview of EU-CIRCLE

# 2.1 Goal and products

Climate related hazards have the potential to destroy or substantially affect the lifespan and effectiveness of European Critical Infrastructures (CI), particularly energy; transportation; marine; water and wastewater management infrastructure; with devastating impacts on the economy and society of the EU. It is thus imperative to generate scientifically valid and verifiable knowledge on the potential impacts of climate change and climate hazards on CI, as a pathway for producing resilient infrastructures.

EU-CIRCLE aims to establish an innovative framework for enhancing the resilience of European Critical Infrastructures (CI) to present natural hazards and to future impacts of climate change. The project will develop a validated Climate Infrastructure Resilience Platform (CIRP) that will: 1) assess potential impacts of climate hazards, 2) provide monitoring through new resilience indicators and 3) support cost-efficient adaptation measures.

The EU-CIRCLE framework will leverage the vast amount of existing knowledge generated in climate research and provide an open-source web-based solution customizable to addressing CI community requirements; either in responding to short-term hazards and extreme weather events or in establishing the most effective long term adaptation measures. 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, EU-CIRCLE will establish two unique technological features that will greatly facilitate its dissemination and exploitation potential: (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 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.

The societal and environmental impacts of climate hazards to the European Critical Infrastructures depend on how these interact with the natural and built environment and human systems. These interactions can be highly spatially and temporally variable, are inherently complex leading to catastrophic consequences of important societal impacts due in large part to differences in societal vulnerability. Thus, to understand the underlying issues tackled with EU-CIRCLE, it is important to understand societal vulnerability and how it interacts with weather conditions to create risk or harm.

In this framework EU-CIRCLE proposes a concrete pathway for minimizing the effects of climate change on CI which as main pillars of European societies, where a comprehensive analysis of damages and impacts (including second tier effects such as societal and psychological) are linked to measures in order to minimize their impacts and reinforce societal functioning and business continuity of CI. The projects is designed to increase societal resilience to climate change in an holistic manner that includes protection of



lives and minimization of losses and livelihoods, the protection of critical infrastructures that play an important role in the functioning and prosperity of societies, the minimization of damages to the environment. Therefore, EU-CIRCLE is expected to impact the following EU societal values:

- Support public accountability & transparency, by developing priorities for the protection of CI, which could be easily communicated to society.
- Strengthen community involvement in preparing for coping with climate hazards which could have devastating impacts on critical infrastructures. Build trust and strong relationships between the public and first responders.
- Increase cohesion of European societies: enhance the capacity to manage differences and divisions and ensure the means of achieving welfare for all members, by reducing vulnerabilities due to societal, cultural and ethical diversifications.
- Fully respect cultural & gender sensitivity.
- Provide support for good governance overall, in addition to a consistent preparedness and response framework, and promote community solidarity in response and responsibility in prevention and preparedness of climate change impacts.
- The protection of essential services is a vital and important issue that will support sustainable development and uninterruptible provision of services that will maintain economic activity.
- Support public accountability & transparency, by developing priorities for resilient open societies.

## 2.2 Climate services

Climate services have the potential to become the intelligence behind the transition to a climate-resilient and low-carbon society. They can enable informed decisions where the goal is to increase resilience and adaptation capacity by addressing existing or emerging risks.

EC Research and Innovation policy and investments can stimulate the emergence of a climate services market by providing a framework that:

- Generates economic value from the wealth of available climate data and models and from the ongoing climate research.
- Ensures that scientific advancements are oriented to deliver demonstrable benefits and solutions to the challenges our society is coping with.

This will scale-up the cost-effectiveness of climate-change mitigation and adaptation solutions with a positive impact on the competitiveness of the European economy.

EU-CIRCLE will use the concept of Climate Services in a broad sense as defined 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). EU-CIRCLE aims to 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 making. It focuses on the development of a "EWE and climate information translation" layer including related information production as well as advancing related services and technological solutions as such.

In principle, the links between natural and human/economic systems provide important drivers for market development from both business and decision-making perspectives. This typically creates the "service demand" which represents a strong feedback to future model development. The key features related to this model are the following:



- Climate system science is associated with enormous amounts of raw data, and also processed
  information aimed at end users, but often without direct two-way involvement with the end user
  community. EU-CIRCLE could be further exploited towards the contribution in the production of
  more specialized data and their translation into meaningful information.
- End users have access to large databases but lack expert knowledge in using that raw data. Users
  are much more than just business and local governments: national and international level policy
  makers (for mitigation and adaptation) are also users, as well as communities and civil society at
  large.
- EU-CIRCLE could fill the requirements to bridge this gap known here as "translation/broker services" which might be through large data providers, but should also include many smaller services (e.g. small and medium-sized enterprises) with local or sector-specific expertise.
- EU-CIRCLE as a contributor to "climate services" shall encompass the whole continuum from data
  to users and include all the components of science which provide the data to start with. Through
  the active involvement of the "demand side" (i.e. end users) a precise reflection of societal needs
  both related to business activities and to public decision-making will be introduced. It will require
  efforts in the initial phase of design and development in order to reveal user needs, and also to
  clarify open access, legal issues and other critical framing issues.

Through its targeted actions, EU-CIRCLE shall place emphasis in particular the following items<sup>2</sup>:

- Transformation of climate-related data together with other relevant information into customized products.
- Projections, forecasts, information, trends.
- Economic analysis, assessments (including technology assessment).
- Counselling on best practices, development & evaluation of solutions.
- Data, information and knowledge to support climate adaptation, climate mitigation and disaster risk management.

#### 2.3 EU-Global initiatives

The EU-CIRCLE consortium is aware of the following global initiatives and aims to support these:

- WMO-GFCS (WMO-GFCS: Global Framework for Climate Services)
- GEOSS (GEOSS: The Global Earth Observation System of Systems)
- WCRP (WCRP: World Climate Research Program)
- JPI-Climate (<u>JPI-Climate</u>)
- Climate Services Partnership (<u>Climate Services Partnership</u>)
- Climate-ADAPT (Climate-ADAPT: European Adaptation Climate Platform)
- EIT Climate-KIC (EIT Climate-KIC: Knowledge, Innovation and Community)

See for more information: http://www.eu-circle.eu/about/related-projects/.

<sup>&</sup>lt;sup>2</sup> European research and innovation Roadmap for Climate Services (March 2015).



# 3 Dissemination and Exploitation Plan

#### 3.1 General outline

Dissemination activities are of high importance both during the project's duration, as well as after the project<sup>3</sup>. The aim of all dissemination activities, and by extension the Dissemination and Exploitation Plan (the D&E Plan), is to raise awareness of the EU-CIRCLE project and multiply its impact in order to: utilise the project's results; find ways of continuing and advancing the related research; and pave the way for future exploitation of the EU-CIRCLE platform. As identified in the EU-CIRCLE Grant Agreement this consolidated Dissemination and Exploitation Plan is identified as Task 8.1, with EUC as the Lead Partner, and due dates M3, M12, M24. The plan is maintained through the lifetime of the project. Updates of the initial plan (at M12, M24) are included in the periodic activity reports.

The overarching intentions of EU-CIRCLE dissemination activities are manifold and include: 1) maximisation of the reputation of the project; 2) development of dissemination and exploitation links to a wide audience, including stakeholders from the CI community, public and private sectors; 3) and communication of the project's results and impact through various activities and actions.

The EU-CIRCLE D&E Plan will act as the key guide for all dissemination and exploitation activities within the project. It defines a clear strategy in terms of responsibility, timing, tools and communication channels. This plan is based on best practices and guidance, as set out by the EU's Horizon2020 program<sup>4</sup>.

Specifically, the main objectives of the EU-CIRCLE D&E Plan are to:

- Raise awareness of the project's aims and subsequent results at the local, national, European and international levels.
- Increase the reputation and visibility of the project and its constituent partners.
- Promote the project's results to CI stakeholders through the establishment of a bi-directional communication channel with them.
- Promote and generate demand for CIRP and other project results to the CI and other relevant stakeholder communities.
- Seek industrial partners from the CI community for testing and capitalising the project's results.
- Align the project's dissemination activities with calendar events of relevant EU programmes & other initiatives.
- Share know-how and project outcomes with the relevant scientific communities.
- Disseminate internally within the consortium through collaboration and information exchange between partners.

In order to achieve the above objectives, the EU-CIRCLE D&E Plan takes a three-pronged approach:

# 1) Awareness-oriented approach

The aim of this approach is to create visibility and raise awareness amongst all CI and other relevant stakeholders over the project's lifetime. It will consist of activities such as the creation of a project website, designing and distributing print dissemination material, organising and participating in project-related events. Contribution to open research data management is an important part of this phase.

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<sup>&</sup>lt;sup>3</sup> Grant Agreement Number 653824 EU-CIRCLE.

<sup>&</sup>lt;sup>4</sup> Horizon2020, Communicating EU research and innovation guidance for project participants, version 1.0, September 2014.



#### 2) Results-oriented approach

This approach has a strong focus on communicating and disseminating the project's results. Activities within this phase include the publication of papers in journals, participation at related conferences and events, end user workshops, information days, and the project's pilot phases.

## 3) Exploitation-oriented approach

This approach focuses on identifying the exploitable results of EU-CIRCLE and working towards their exploitation and utilization beyond the project's duration. This phase will progress in parallel with WP7 and WP8 development (List of WPs in the appendices), where the SimICI and the optimal exploitation model of the CIRP will be developed. The EU-CIRCLE framework, standards and methodologies will be accessible to all interested parties in the CI resilience business who have a confirmed interest in creating customized and innovative solutions. This will be complemented with a commercial portal allowing customers and vendors to buy or sell models and services. As such, EU-CIRCLE will significantly add to the existing pool of knowledge and increase choice in the market. The design and architecture of EU-CIRCLE outputs, emphasizing transparency and greater flexibility, will allow potential users to develop fully customized solutions linked to relevant CI data and properties, to define and implement customized impact assessment models, and to use climate / weather data on demand. Individual members of the consortium may use customised models, 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.

## 3.2 Roles and Responsibilities of the EU-CIRCLE Consortium

In order to achieve the aims and objectives of the D&E Plan specific roles and responsibilities have been assigned to the project partners.

**European University Cyprus Ltd** (EUC) is the primary point of contact for all dissemination and exploitation activities. EUC is also responsible for the high-level-management of all these activities.

**ADITESS** is responsible for all the project communication channels (website, Facebook, LinkedIn group, Twitter, et cetera) including their development and maintenance.

**D'Appolonia S.P.A.** is the project Innovation & Exploitation Manager (IEM). D'Appolonia S.P.A. will make sure that all communication and dissemination activities contribute and enhance all exploitation efforts. As such D'Appolonia will be responsible for the Project Consolidation Workshop at M12 and for Exploitation Models in WP8.

**The National Center for Scientific Research** — **Demokritos** (NCSRD) the Project Coordinator provides coordination of the overall communication efforts with the project's technical work. ||

Furthermore, EU-CIRCLE has set up a Communications Team for better coordination of the various communication and dissemination activities. Each Partner organisations is represented in this team. The members of the team will serve as the Points of Contact for all communication activities at their respective institutions (Table 1). Regular meetings via teleconference will be arranged in order to ensure that the objectives of the D&E Plan are being met. The team provides at least one update per month, for example a news event listed on the website, or a LinkedIn post, et cetera. The team is also encouraged to cross promote i.e. if the project has released a press release, the team should also announce it on Facebook,



Twitter, our website and any other platform we may be using. The team should also invite and timely respond to comments on the project's website, LinkedIn, Twitter and Facebook accounts in order to meet with the set out Dissemination and Exploitation goals.

Table 1: EU-CIRCLE Communication Team			
Partner organisation	Representative	Email	Phone
National Center for Scientific Research "Demokritos"	Thanasis Sfetsos Aggeliki Demertzi	ts@ipta.demokritos.gr aggeldem@ipta.demokritos.gr	+30 2106503403
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# 3.3 Target Audience and Groups

In the next paragraphs the EU-CIRCLE main target groups are identified and specific action plans for communicating the project activities and results for each target group are provided.

## 3.3.1 Primary Group of Interest

This group encompasses those organizations that are directly connected with the EU-CIRCLE concept, objectives and expected outcomes. Dissemination activities with this group will be initiated at the beginning of the project and will continue throughout the project's lifetime. Representatives of this group will be invited to participate in the EU-CIRCLE planned Workshops and during the evaluation of the EU-CIRCLE scenarios. The consortium has identified as members of this group the following target groups:

- 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).

As Task 8.6 in the EU-CIRCLE Grant Agreement is identified Communication to CI stakeholders. [Lead KEMEA, Deliverable D8.9, due M6, M12, M18, M24, M30, M36]

Already within the project's 1<sup>st</sup> month, EU-CIRCLE elaborated a comprising of members stemming from all identified user groups dealing with Critical Infrastructure Resilience, Climatology and Natural Hazards Research. Their envisaged contribution can be summarized in the following three key objectives:

- Participate and contribute, to meetings with the EU-CIRCLE consortium to improve knowledge on present status and needs of the Critical Infrastructure Protection at national and international level.
- Assess, comment, prioritise and supplement interim findings and final results of the project.
- Attend and actively participate in related workshops and in the Final Conference, with all expenses covered by the Consortium.

Additionally, including Member States NCP for the CIP, CI owners / operators and EU officials from different DGs related to CI resilience programs and regulatory work, and the scientific community where ongoing work within EU-CIRCLE, emerging climate threats, et cetera will be conveyed between stakeholders. Regular (at least on a 6 months basis) bulletins will be produced and electronically send to the CI stakeholders (and also put on the EU-CIRCLE website).

- Meeting with European NCP counterparts.
- Presentation to DGHOME activities for EPCIP.

As Task 8.7 in the EU-CIRCLE Grant Agreement is identified Development of Exploitation Model [Lead DAPP, Deliverable D8.10, version 1.0 due M27, Deliverable D8.13 version 2.0 due M36]

Task 8.7 the following will ensure coherence and complementarity of dissemination, implementation and exploitation activities to secure the project sustainable impact. As such Task 8.7 main activities are:



- Identification and screening of customised exploitation models, inviting 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.
- Extension of the existing methods in the management of climate risk and hazards, resilience and adaptation, analysis of the application, usability and acceptance by stakeholders and users.

The EU-CIRCLE framework, standards and methodologies will be accessible to all interested parties in the CI resilience business and having a confirmed interest in creating customized and innovative solutions. The starting point of this activity is the identification and characterization of the project exploitable results. These activities will be preparatory to the development of the exploitation model. For each exploitable result, the background and the expected foreground coming from each partner will be carefully investigated as well as the IPR claims; these initial activities will bring to a full characterization of each exploitable result by identifying the main owners, the other partners involved, the innovation content of each result, the customers as well as the benefits brought to them, the competitor and the main competing products (an accurate patent analysis will be carried out too), the specific protection measures undertaken and so on; special attention will be paid the cases of joint ownership; an accurate risk assessment will be performed for each exploitable result and the actions to be undertaken in order to mitigate these risks will be defined. Then the exploitation activities will be complemented with the development of an exploitation model and commercial portal allowing customers and vendors to buy or sell models and services. As such it will significantly add to the existing pool of knowledge and gives choice to the market. The members of the consortium may use customized models, inviting CI community and the financial sector to use and/or evaluate the models, whereas consortium members may provide customized tools as service to interested parties.

Its design architecture, transparency and greater flexibility, will allow potential users to introduce fully customized solutions and CI data and properties, defining and implementing customized impact assessment models, and use climate /weather data on demand. EU-CIRCLE is designed to operate as a set of plug-and-play components which can be developed by any member, to meet some requirements that will be defined according to the needs that will raise from the discussion with the partners.. EU-CIRCLE toolbox aspires to bring a series of potential benefits to the CI community:

- Better informed decision on CI resilience to climate hazards.
- Effective adaptation tools and planning based on innovative cost-efficiency tools.
- Support for regulatory compliance.
- Integrated CI modelling.

Its novelty focuses on the extension of the existing methods in the management of climate risk and hazards, resilience and adaptation. Especially, the methodological framework for assessing and enhancing resilience of European interconnected and interdependent CI to climate related hazards substitutes an innovation.

One of the main Satways products is S.A.F.E.R. a Crisis Management System for Civil Protection Agencies. Satways plan is to exploit the CIRP software by incorporating is modules into the S.A.F.E.R. platform. In this way EU-CIRCLE will offer Satways the opportunity to enhance the S.A.F.E.R. system by offering a decision framework to help determine and quantitatively compare alternative strategies for enhancing resilience within a community. The future plan is to go support not only "what if" scenarios but also "what is" scenarios by adding support for real time situational input to the system and modifying the interface for support of real time emergency responders.

The following actions to support efficient exploitation and commercial utilization are foreseen after the termination of the project:



- Marketing and Sales efforts via trade fairs, exhibitions and specific marketing and promotion initiatives to address and acquire new customers by presenting the technology and possibilities of the whole system.
- Sales activities via our distribution network.
- Active participation in industrial seminars and networks to communicate selected exploitable results.

## 3.3.2 Secondary Group of Interest

Within this group, the EU-CIRCLE consortium will identify EU and National projects and organisations currently engaged in related research areas for communicating the EU-CIRCLE activities and results.

These include:

#### EU funded projects

•	RESIN	H2020 funded under DRS9
•	PLACCARD	H2020 funded under DRS9
•	CAMINO	www.fp7-camino.eu
•	CIPRNet	www.ciprnet.eu
•	DRIVER	www.driver-project.eu
•	FloodResilienceCity	www.floodresiliencity.eu
•	INFRARISK	www.infrarisk-fp7.eu
•	INTACT	www.intact-project.eu
•	RAIN	www.rain-project.eu
•	REAKT	www.reaktproject.eu
•	PREDICT	www.predict-project.eu
•	SNOWBALL	www.snowball-project.eu
•	STAR-FLOOD	www.starflood.eu
•	Strest	www.strest-eu.org
•	TRAP	www.trapproject.eu

#### Nationally Funded projects:

• Critical Infrastructure in Polish National Risk Assessment

#### International Projects:

• NIST Center of Excellence on Resilience

# **3.3.3** Tertiary Group of Interest

Groups identified as very active in EU-CIRCLE relevant research areas as academia, researchers and experts fall within this group. Government bodies and organisations that could be potential customers of EU-CIRCLE outcomes are also members of this group. The consortium will identify any opportunity with this group for communicating project results throughout the project lifetime. Sharing project results with coordinators and key actors of projects dealing with similar topics, both within the programme and in others, will ensure visibility and uptake of results, and provide opportunities to receive feedback, share experiences and discuss joint problems and issues.



As Task 8.5 in the EU-CIRCLE Grant Agreement is identified Training material - summer school [Lead GMU, Deliverable D8.8, due M30]

EU-CIRCLE will collaborate closely with several policy committees in order to bring together expertise and perspectives across borders for the development of training material, best practices and policy development guidelines. The outcomes of that effort will provide practical help to Stakeholders in raising standards and policies towards the optimization of crisis assessment and management. GMU will deliver a consolidated training material (based on the e-learning concept) in the form of Critical Infrastructure Safety Training System (CISTS) including at least the following Training Courses:

- TC 1. A general methodology on critical infrastructure safety aspects.
- TC 2. Safety of complex systems and processes.
- TC 3. Safety of multistate system with dependent components.
- TC 4. Modeling critical infrastructure operation process.
- TC 5. Modeling critical infrastructure safety.
- TC 6. Identification of critical infrastructure operation process.
- TC 7. Testing uniformity of statistical data coming from the critical infrastructure operation process.
- TC 8. Analysis and estimation of critical event parameters.
- TC 9. Identification of critical infrastructure components safety.
- TC 10. Prediction of critical infrastructure operation process.
- TC 11. Prediction of critical infrastructures safety.
- TC 12. Optimization of critical infrastructures operation and safety.
- TC 13. Modelling critical infrastructure accident consequences.
- TC 14. Optimization of critical infrastructure accident consequences.
- TC 15. Risk analysis of chemical spills at sea.
- TC 16. Strengthening critical infrastructure resilience to climate change.
- TC 17. Critical Infrastructure Safety Training System.

After including to CISTS other project participants' training courses, the Integrated Critical Infrastructure Resilience to Climate Change Training System will be created as a project final training material.

As Task 8.8 in the EU-CIRCLE Grant Agreement is identified Establish standards and standardization methodologies. [Lead UNEXE, D8.12, due M36]

EU-CIRCLE is an interdisciplinary project consisting of several models, types of applications, case studies and sets of data. It is necessary to establish and formulate a standardized method of approach to resilience problems, which will lead to standardized steps for facing resilience problems. Integrating the components will therefore require that steps and interfaces be established so that the project components can pass data/information between each other. Interface standards do exist (e.g. OpenMI- http://www.openmi.org, OGC, CF metadata, CHARMe annotations) but not for every aspect of EU-CIRLE, an interface standard which allows exchange of data between both data streams and models), but it may not be sufficient for the interdisciplinary approach adopted in EU-CIRCLE. This task will define and propose the standardization requirements for disaster resilience problems, within the EU and beyond. Thus it will assist and enhance the exploitation of the project outcomes. It is expected that it will either propose enhancements to existing standards (e.g. OpenMI, ISO 31000) and/or establish the basis for more or new standards and standardization steps. This task will take the results of other WPs (especially WP2, WP3, WP4 -Task 4.2 and WP5), transform them into draft standards and standardization steps and draw them to the attention of appropriate standards organizations (e.g. CEN, et cetera). This task will start late in the project (T25-36), so as to take into account challenges, outcomes and results from the other WPs.

In addition to these tasks and deliverables we have identified deliverable D8.11: Final report on collected and harmonized data and metadata [ADIT, due M33].



# 3.3.4 Other Groups of Interest

The internal audiences of each Partner's organisation are considered important too. The members of the project consortium and their institutions will be well informed about the progress of the project. Adequate internal dissemination will also ensure that EU-CIRCLE has a high profile.

#### 3.4 Messages

EU-CIRCLE messages will be directed at the Targeted audiences (see paragraph 3.2) and will change as the project progresses, for example at the outset of the project the messages will include the scope and the objectives of EU-CIRCLE, whilst toward project completion the focus of the messages will change to the actual results and outcomes of the project. EU-CIRCLE Dissemination and exploitation messages will adhere to the following general rules:

- The message is designed to meet the needs of the target audience ("clarity").
- The message is designed to be consistent, truthful and credible ("transparency").
- The message highlights the main EU-CIRCLE objectives ("identity").

EU-CIRCLE dissemination is divided into the following phases:

- PHASE-1: Specification of the EU-CIRCLE framework.
   In this phase the key message aims at creating awareness of the project's aims and deliverables.
- PHASE-2: Development.

targets (WP 8.4).

- During this phase it is important to keep the interest of the target groups and to continue building the awareness of the project. We need also to ensure that the project will communicate and disseminate the research findings and the advances of the EU-CIRCLE solutions, taking care however, not to disclose confidential information. In this phase the message differs depending on the target audience, highlighting different parts of the project advances. Some of the dissemination efforts may include papers in scientific peer reviewed literature (e.g. assessment of climatological risks, et cetera).
- PHASE-3: Use-case Implementation and Testing.
   In this phase the message must communicate the objectives of the project that have been fulfilled, along with the important finding of testing and evaluation. Test-bed infrastructures provided by the project partners are a strong point for communication.
- PHASE-4: Exploitation.
   This is the final phase of the project when the solution is available to the public. This phase will have its own Business Plan that will take care of the dissemination of project results to identified

In the following Table (Table 2) the key messages for the specified target audiences are identified for each of the project phases.



Table 2: Outline and Examples of EU-CIRCLE Main Dissemination and Exploitation Messages in the four developmental project Phases for Targeted Audiences

Phase	Primary Interest Group	Secondary Interest Group	Tertiary Interest Group
PHASE 1 (Framework specification)	-EU-CIRCLE addressesEU-CIRCLE increases productivity in the industry -EU-CIRCLE has high scientific valueEU-CIRCLE is an interesting project to get involved	-EU-CIRCLE framework an innovative solution -EU-CIRCLE is a promising project -EU-CIRCLE can further contribute in	-EU-CIRCLE is an interesting project to interact -EU-CIRCLE solutions apply in both the private and the public sectorThe concept and implementation is an added valueEU-CIRCLE concept provides new research opportunities
PHASE 2 (Development of the project)	-EU-CIRCLE components have been successfully developed -EU-CIRCLE provides a new Development Methodology that will assure	-EU-CIRCLE solutions promote the area ofEU-CIRCLE solutions can be used to build new ecosystems.	-EU-CIRCLE solutions are innovative -EU-CIRCLE development methodology can be used for developing
PHASE 3 (Use cases and Testing)	-EU-CIRCLE components, tools and mechanisms are validated on -EU-CIRCLE has reached Technology Readiness Level xx (TRLxxx)	-EU-CIRCLE solutions successfully tested and evaluated -EU-CIRCLE test-beds span diverse domains -EU-CIRCLE test-beds can be used by other projects /initiatives	-EU-CIRCLE solutions are successfully tested -EU-CIRCLE test-beds are evaluated to meet standards of public organisations
PHASE 4 (Exploitation)	-EU-CIRCLE solutions can boost productivity and -EU-CIRCLE provides modules for development of	-EU-CIRCLE contributes to standards -EU-CIRCLE results can be used as follow-up for other projects	-EU-CIRCLE provides effective solutions in different application areas spanning from public services to a number of business models in the public and private sector.



# 4 EU-CIRCLE Communication Channels and Roadmap

In this section, we define the main communication channels that will be used to achieve the objectives of the D&E Plan. Furthermore we will elaborate on this by describing the EU-CIRCLE Dissemination and Exploitation Roadmap, which gives the EU-CIRCLE implementation for each of the listed channels. A comprehensive plan is provided for the production of the project website, social media presence, print media, newsletters, brochures and press releases, as well as scientific publications along with timelines and responsibilities for the production of these materials.

#### 4.1 Website

The EU-CIRCLE website<sup>5</sup> is the key communication tool. It serves as a public window, in which the project communicates relevant information about its goals, progress, upcoming activities and events to the various target audiences. This is part of EU-CIRCLE Task 8.3 as identified in the Grant Agreement.

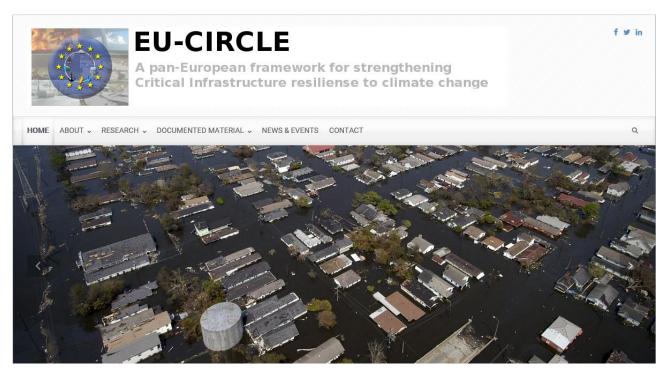


Figure 1: Screen shot of homepage of the EU-CIRCLE Website.

The development of the website has been realised with the use of a WordPress template. WordPress is a free and open source content management system (CMS) based on PHP, MySQL, Javascript and CSS3. Web development on WordPress is possible with the deployment of specially designed templates some of which are freely available. The platform also allows the deployment of plug-ins with added functionality and extra features as needed. A number of available plugins have been deployed for this website and offer the following features:

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<sup>5</sup> http://www.eu-circle.eu/



- Google Maps. This plugin allows the developer to represent key addresses such as contact details and
  case studies locations in a map. This feature provides a better insight on the location of interest; also
  increases interactivity between the user and the presented material.
- Calendar. This plugin provides a user-friendly management of the events in terms of creation, display
  and editing. Furthermore, using the calendar widget which is located on the side bar of the website an
  overview of the current month with the upcoming events is available.
- Photo Gallery. The incorporation of images in posts is critical and this plugin adds the dynamic aspect of animated transitioning between images.
- Accessibility Tool. This plugin adds a menu on the page and provides an enhanced experience for people who confront issues with the contrast and colour of images as well as the size of text.
- Multilingual Support. Due to the European target groups EU-CIRCLE will provide information in UK, as well as the languages of the participating partner organisations.
- Web Analytics Service. This plugin allows the administrator to track visitors from all referrers, including search engines and social networks, direct visits and referring sites. These will serve the purpose of monitoring and reporting.

The EU-CIRCLE website also includes features like search and article categorisation for improved content discovery. As another means for increasing communication between the consortium and third parties, a blog page is also maintained as a section within the webpage. Blog posts should involve aspects or conventions related to the project, including more extensive descriptions about project achievements and demo versions. Additionally, the blog page may serve as a means of increasing the traffic of the page and a reason for visitors to check back the website at a later stage.

The EU-CIRCLE website will be used for the distribution of the EU-CIRCLE newsletters. Users can simply register to receive the periodical newsletter regarding project updates and more. The website visitor has access to the complete archive of all newsletters produced by the project in a downloadable form (PDF).

The EU-CIRCLE website also deploys mechanisms for easily sharing content via email and social media; easily accomplished with a click of a button located under the main section of each post and page. The presence of the project on key social media websites is considered critical as it allows the engagement of large audiences who consistently check in their social media profiles. Links to the project's social accounts exists on the header of the website and are visible throughout navigation.

ADITESS is responsible for the management of the EU-CIRCLE Website, which comprises maintaining the EU-CIRCLE Website, providing updates on EU-CIRCLE events, inviting members to provide information on specific issues and respond to any posts made on the website.

# 4.2 Online Tools and Social Media

EU-CIRCLE will use social media for raising awareness and communicating the results of EU-CIRCLE to a wide community. Furthermore, building and maintaining an online presence will enable the EU-CIRCLE consortium to reach its target audience directly. EU-CIRCLE will use the following social media tools: LinkedIn and Twitter. This is part of EU-CIRCLE Task 8.3 as identified in the Grant Agreement.

LinkedIn<sup>6</sup>: In order to increase project visibility and create a space for exchange of knowledge and experience among professionals and stakeholders we have created a LinkedIn group (EU-CIRCLE EU) where the members of the consortium may exchange ideas and knowledge not only between them but also with the greater scientific and industrial community. It is imperative that all project

<sup>&</sup>lt;sup>6</sup> https://www.linkedin.com/grp/home?gid=8360173



partners invite stakeholders to join this group and communicate EU-CIRCLE achievements within this group.

- Twitter<sup>7</sup>: Additionally to the LinkedIn group, a Twitter account has also been created. Twitter is an excellent medium for conveying short messages to followers. The Twitter account is considered essential, especially during workshops and conference, where it is advantageous for the activities of EU-CIRCLE to be publicised instantly; the use of hashtags will also allow our vision to reach more people.
- Wikipedia entry on EU-CIRCLE: provide a brief description and link to the project web address.

ADITESS is responsible for the management of the EU-CIRCLE social media, which involves creating and maintaining EU-CIRCLE LinkedIn group and Twitter accounts, provide updates on EU-CIRCLE events, invite members to provide information on specific issues and respond to any posts made.

## 4.3 Print Media

Print media includes newspapers, newsletters, magazines (e.g. industry magazines/journals), scientific publications, press releases, flyers and brochures. EU-CIRCLE will take every opportunity to use print media.

**Newspapers**: All partners will prepare and publish articles on project's concept, scope, objectives and expected outcomes in the local press in their respective countries. It may be worthwhile to provide some accounts of historical examples where CI has been inflicted on by extreme weather, and thus frame the message from events that people can relate to.

**Newsletters**: An bi-annual newsletter will be prepared and disseminated to the project's target audience and published on our website which will provide updates on the project's progress and in particular its results and achievements. In addition, EU-CIRCLE will identify other trade or EU newsletters aimed at our target audiences where ad hoc articles may be prepared and published. This is part of EU-CIRCLE Task 8.3 as identified in the Grant Agreement.

The bi-annual EU-CIRCLE newsletter will provide news, articles, and in-depth information about the project's progress and outcomes, as well as any other relevant information. For each newsletter the content will be discussed and confirmed in cooperation with all EU-CIRCLE partners. The language used is clear and as simple as possible, so that it is attractive to readers and easily understood by non-technical experts. Where available, articles will be enriched by relevant photos and images.

The process of newsletter production will be based on the following steps:

- ADITESS will design the newsletter template.
- EUC will circulate proposed content and topics for the upcoming issue of the newsletter to all partners who will provide comments and feedback to EUC.
- EUC will review/edit and develop the draft version that will be sent to NCRSD as Project Coordinator and project partners, for feedback.
- NCSRD will approve the content of the issue and provide authorisation for publication.
- ADITESS will publish the newsletter in the EU-CIRCLE website.
- All partners will disseminate the newsletter to their target audience with every communication tool available.

The newsletter will ideally be A4 sized and 2 to 4 pages long, in order to be printable in a single leaf and easily folded. It will be produced in all local languages of the project partners and specifically in English,

<sup>&</sup>lt;sup>7</sup> https://twitter.com/eu\_circle



Croatian, French, German, Greek, Italian and Polish (see also Table 3). This will enable better penetration and communication of project results at the local and National levels.

Table 3: EU-CIRCLE News Letter and Press Release translation actions		
EU-CIRCLE	EU-CIRCLE Partner	
Languages	responsible for translation from English	
HR	UVG	
DE	To be decided: Fraunhofer (pref) or MRK	
EL	NCDSR	
FR	CEREN	
IT	DAPP	
РО	GMU	

All the newsletter's issues will contain at least the following elements:

- The EU-CIRCLE logo.
- The standard disclaimer for the HORIZON Programme and the EC logo as per the EC's Guidelines on Visual Identity.
- The web address of the EU-CIRCLE website.
- The contact details of the EU-CIRCLE project.

The newsletters will be released electronically, through the EU-CIRCLE website and also via all partners' existing websites. As already indicated, a new issue will be produced every 6 months. Table 3 below indicates the newsletter publication target dates.

Table 4: EU-CIRCLE Newsletter production			
Issue	EU-CIRCLE Month	Publication Date	
#1	M6	November 2015	
#2	M12	May 2016	
#3	M18	November 2016	
#4	M24	May 2017	
#5	M30	November 2017	
#6	M36	May 2018	



**Press releases**: EU-CIRCLE will prepare press releases to communicate and disseminate important events. Press releases will be prepared in English and translated into the various languages of the consortium (see Table 3).

Magazines: EU-CIRCLE will identify CI, civil protection, climate change or EU policy magazines (e.g. Horizon 2020 magazine, research\*eu results magazine) aimed at our target audiences where ad hoc articles may be prepared and published.

**Brochures:** A brochure is a small print medium which is an extremely useful and flexible medium for disseminating information as they can be distributed at conferences, meetings and workshops as well as be inserted into press kits and presentation folders.

The EU-CIRCLE brochure will provide the basic facts of the project, its objectives, expected results, the consortium and as well as provide contact details. The brochure will be available in downloadable electronic form on the EU-CIRCLE website and in hard copy for circulation by the partners at dissemination events. The brochure will provide the following information:

- Concept: Brief introduction to the EU-CIRCLE project.
- Overview: including expected results of the project.
- Partners and project details: including duration, Grant Agreement number, budget, and contact details.
- Impact and benefits to society.

ADITESS will prepare and publish the project brochure. This is part of EU-CIRCLE Task 8.3 as identified in the Grant Agreement.

#### 4.4 Scientific Publications

EU-CIRCLE will 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>8</sup>. This is EU-CIRCLE Task 8.2 as identified in the Grant Agreement.

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). EU-CIRCLE will actively pursue both 'green' open access publishing (self-archiving with tools like ResearchGate for the individual or group of authors), and 'gold' open access (actual publishing in an open-access journal). In the open access publishing model costs for publication (Author Processing Charges, APCs) can usually be borne by the university or research institute to which the researcher is affiliated, or to the funding agency supporting the research. In the EU-CIRCLE grant Agreement it is agreed that EU-CIRCLE research data will not be published open access.

For each deliverable that can be published the participating partners will decide whether the green or the gold route will be pursued, and they will also be responsible for acquiring the APC for that particular publication. The maximum possible exposure of the scientific community to the scope and objectives of the project is the goal in mind when making this decision. Also to further the exposure of EU-CIRCLE publications a selected number of publications will be made transparent with tools for enriched

<sup>&</sup>lt;sup>8</sup> Grant Agreement Number 653824 EU-CIRCLE.



publications by linking the publication to the consortium, to application or other implementations, et cetera.

In addition, all EU-CIRCLE partners are encouraged to disseminate their EU-CIRCLE work through (inter)national conferences and Thematic workshops. All publication actions (green, gold, enriched, proceedings) will be listed on the EU-CIRCLE website.

Apart from the above, each partner, however, is free to select and publish their scientific papers according to their own specific objectives. All activities and papers will be placed on the EU-CIRCLE website.

## 4.5 Broadcast Media

Broadcast media includes radio and television. Most people obtain their news information from the television, so targeting television is important in reaching a wide audience. The EU-CIRCLE will participate in local radio and television shows where possible. The potential of exploiting EuroNews at the end of the project for disseminating the results of the project will be explored.

#### 4.6 EU Communication Mechanisms

To pursue communication and maximum networking with other ongoing related activities, we will make maximum use of the EU supported communication mechanisms, such as publication of project information on the official sites of the EU. In addition, networking activities organized by the European Commission are included in the EU communication mechanisms.

CORDIS Wire enables users to advertise events or publish press releases relevant to Research, Technological Development and Innovation activities on the CORDIS News and Events service. EU-CIRCLE will periodically share significant project milestones that would be interesting for the CI and climate change communities. CORDIS Wire will help us publicise important news and events whilst categorising it properly per programme or country or subject so that we can get better online visibility. Apart from CORDIS Wire, we will explore functionalities in platforms like the OpenAIRE project and ZENODO like publications or software deposits for open access. This will boost the discoverability of the project and will help us share and showcase our research results.



# 4.6.1 EU-CIRCLE Logo

The official EU-CIRCLE project logo is depicted below (Figure 2):



**EU-CIRCLE** 

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

Figure 2: EU-CIRCLE Logo

## 4.6.2 Use of EU Emblem

We are obliged by the EU-CIRCLE grant agreement to publicly acknowledge the support received from the European Union. The use of the EU emblem is based on the European Commission's Guidelines on Visual Identity [Ref]. According to the guidelines: 'The preferred option to communicate about EU funding is to write "Funded by the European Union" or "Co-funded by the European Union" as appropriate next to the EU emblem on the communication material where the EU emblem is used.'

## 4.7 Other Activities

Workshops and networking with other relevant National and EU research projects provide a great opportunity for attracting stakeholders and communicating the project's objectives and outcomes. In the next paragraphs, we describe the planned Workshops and networking activities with other relevant projects. Participation in International conferences is a further activity that can contribute to the project communication efforts. However, this activity is mostly related to project exploitation activities and market awareness of project results and as such is only briefly described here.

#### 4.7.1 EU-CIRCLE Final Workshop

The EU-CIRCLE workshop will be the final outreach event of the project, where the 4th International Case Study and SimICI will be officially presented to the CI community. This workshop is identified as EU-CIRCLE task 8.4, and will be organized in the final project month (M36). There will be an open call for participation to the relevant stakeholders (approx. in M24) where interested organisations and individuals may participate in the Workshop with their own customized models – services, data et cetera. The Final Workshop will be a unique opportunity to attract the interest of stakeholders and to facilitate a discussion on CIRP.



## 4.7.2 Networking with Related Research Projects

Several projects have been identified to date that provide networking opportunities and synergies with EU-CIRCLE. Networking activities have already been initiated primarily by the EU-CIRCLE Project Coordinator NCSRD, as has been described in Section 3.2.2 of this plan.

## 4.7.3 Participation in International Conferences

Participation in international conferences is a combined action that engages both dissemination and exploitation activities. Therefore, all project partners must seek any opportunity for participating in International conferences, within budget constraints. In fact, within EU-CIRCLE there is not any provision for participation in International events. Therefore, each partner, especially participant SMEs will need to make their own assessment for their participation in International events, based on company's business plans. A tentative list of potentially relevant international events is (this list will be also appearing on the EU-CIRCLE website and updated regularly:

- European Geosciences Union, General Assembly 2016, Vienna, Austria, 17 22 April 2016 (http://www.egu2016.eu/).
- First International Conference on Surface Transportation System Resilience to Climate Change and Extreme
  Weather Events September 16-18, 2015. The National Academy of Sciences Building, Washington, DC
  (<a href="http://www.cvent.com/events/first-international-conference-on-surface-transportation-system-resilience-to-climate-change-and-ext">http://www.cvent.com/events/first-international-conference-on-surface-transportation-system-resilience-to-climate-change-and-ext</a>).
- Fundamentals of Coastal Adaptation Workshop September 8, 2015, Boston (<a href="http://www.resilient-infrastructure.org/">http://www.resilient-infrastructure.org/</a>).
- Critical Infrastructure Protection & Resilience Europe 2016 conference, 2nd-3rd March 2016, The Hague (<a href="http://www.cipre-expo.com">http://www.cipre-expo.com</a>).
- Programme of Research on Climate Change Vulnerability, Impacts and adaptation (PROVIA), Adaptation Futures 2016, Rotterdam, the Netherlands, 10-13 May 2016.
   (<a href="http://www.unep.org/provia/ADAPTATIONCONFERENCE/AdaptationsConference2016">http://www.unep.org/provia/ADAPTATIONCONFERENCE/AdaptationsConference2016</a>).
- Fourth Symposium on Building a Weather-Ready Nation: Enhancing Our Nation's Readiness, Responsiveness, and
  Resilience to High Impact Weather Events by the American Meteorological Society, 10-14 January 2016
  (http://annual.ametsoc.org/2016/index.cfm/programs-and-events/conferences-and-symposia/fourthsymposium-on-building-a-weather-ready-nation-enhancing-our-nation-s-readiness-responsiveness-andresilience-to-high-impact-weather-events/).
- RMetS / NCAS Conference 2016, High Impact Weather and Climate, Manchester, 6-8 July 2016 (https://www.ncas.ac.uk/index.php/en/meetings-and-events/2184-rmets-ncas-conference-2016).
- Earth Science & Climate Change will be organized on the theme "Stimulating and Analysing the changes of Earth & Climate-ICESCC", Bangkok during July 25-27, 2016 (http://earthscience.conferenceseries.com/).

Participation in International Conferences will be consolidated with the suggestions of all project partners in further development and modification of the Dissemination and Exploitation Plan after first year and second year project activity.





# 5 Partner Organisation's Dissemination Plans

This section sets out the Partner Organisation's dissemination. All Partners are invited to use the EU-CIRCLE dissemination template, which will be made available on the website. This part of the Dissemination and Exploitation Plan will be updated at M12, and M24.

The EU-CIRCLE consortium (see Table 5) has established simple reporting rules on the dissemination activities undertaken by Partners which allow its inclusion on the EU-CIRCLE website. These rules include:

- Short Description of the event and its Date (where applicable).
- Target Audience.
- The message.
- The communication channels used.



Table 5: EU-CIRCLE Consortium				
Partner Organization	Country	Website		
National Center for Scientific Research "Demokritos"	GR	http://www.demokritos.gr/?lang=en		
Fraunhofer -Gesellschaft zur Foerderung der angewandten Forschung e.v	DE	http://www.ivi.fraunhofer.de/en.html		
Meteorologisk institutt	NO	http://met.no/English/		
The University of Exeter	UK	http://emps.exeter.ac.uk/		
Akademia Morska w Gdyni	РО	http://www.am.gdynia.pl/		
Artelia eau et environnement	FR	http://www.arteliagroup.com/		
Satways	GR	http://www.satways.net/		
Entente pour la forêt Méditerranéenne	FR	http://www.valabre-ceren.org/		
D'appolonia	IT	http://www.dappolonia.it/en		
Drzavni Hidrometeoroloski Zavod	HR	http://meteo.hr/		
Xuvasi ltd	UK	https://roost.xuvasi.com/		
MRK Management Consultants GmbH	DE	http://mrk.de/home.html		
European University Cyprus Ltd EUC	CY	http://www.cerise-group.org/		
Center for security studies KEMEA	GR	http://www.kemea.gr/index.php/en/		
The University of Salford	UK	http://www.salford.ac.uk/		
Drzavna Uprava za Zastitu i Spasavanje	HR	http://www.duzs.hr/		
Aditess Advanced Integrated Technology Solutions & Services	СҮ	http://www.aditess.com/		
Torbay council	UK	http://www.torbay.gov.uk/index		
Hellenic Ministry of Defence, Hellenic National Meteorological Service	GR	http://www.hnms.gr/hnms/english/in dex_html		
Veleuciliste Velika Gorica	HR	http://www.vvg.hr/index.php?lang=en		



# 5.1 Partner: National Center for Scientific Research "Demokritos"

#### 5.1.1 Profile

The Environmental Research Laboratory (EREL) of the Institute of Nuclear & Radiological Sciences and Technology, Energy & Safety (INRASTES) of NCSRD (Athens, Greece) is an established RTO combining complementary expertise in climate research domains areas with important research potential (awarded the largest FP7-REGPOT ENTEC for climate research) both in terms of highly qualified personnel and infrastructures. It is the sole research institute in the country with an integrated R&D approach to environmental and climate contributing to environmental protection and sustainable development in regional and global terms. R&D in air quality, climate change and regional models, dispersion of pollutants decision support systems, atmospheric aerosol and heavy metal pollution, integrated with advanced risk analysis and impact assessments are subjects of major research focus. Combining the fields of diagnosis, prognosis, impact assessment and pollution reduction technology using simulation (atmospheric modelling in all scales) and measurements /analysis, the institute is a leading R&D entity in the field.

#### 5.1.2 Dissemination Plan

#### Short term

Actively pursue scientific publications in open source journals and international conferences to disseminate EU-CIRCLE to the widest possible audience. Additionally there have been targeted presentations to National and Regional authorities dealing with climate change and impacts to the critical infrastructure sectors.

#### Medium term

EU-CIRCLE will exploit the concept of Climate Services in a broad sense as defined 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). Under this concept NSCRD will use the EU-CIRCLE to 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 making. It focuses on the development of a "EWE and climate information translation" layer including related information production as well as advancing related services and technological solutions as such. This concept fits the Climate Services initiative pursued by the EC under the Climate Services Initiative<sup>9</sup>, supporting the development of national climate services and nurturing a very young business sector.

# Long term

Long term dissemination an exploitation plan is to build a Climate – Extreme Weather Services Incubator to be located in NCSRD. This concept is to allow for the weather and climate simulation data generated by NCSRD to be provided under a Service Level Agreement to new entrepreneurial and weather enthusiasts as a means to build their new climate – weather – risk products and disseminate them as climate services through websites and smart apps. NCSRD will provide ready data into the EU-CIRCLE developed standard formats, which will be transformed – together with other relevant information – into customised products such as projections, trends, economic analysis, counselling on best practices, development and evaluation of solutions and any other service in relation to climate that may be of use for the society at large.

<sup>&</sup>lt;sup>9</sup> https://ec.europa.eu/research/environment/index\_en.cfm?pg=climate-services



# 5.2 Partner: Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung

#### 5.2.1 Profile

Fraunhofer Institute for Transportation and Infrastructure Systems IVI is part of the Fraunhofer-Gesellschaft, which undertakes applied research to private and public enterprise. There are 67 Fraunhofer Institutes in Germany with about 23 000 employees.

Fraunhofer IVI has extensive experience in developing large applied research projects in the fields of transportation, infrastructure, security and energy. Currently around 100 scientists and engineers work at the Institute with expertise in - among others – software engineering, public transport, electric mobility and empirical research methodology. The Department of Strategy and Optimization has longstanding experience in developing solutions for management of large-scale situations and crises.

Fraunhofer IVI was and is involved in several major projects on regional, national and European level in the field of software architecture and development. The developed software technology MobiKat provides decision support for planning and operational purposes and is in practical use at medical rescue services, police and other civil protection organizations.

The team has extensive experience with development of interoperable IT infrastructures, decision support algorithms and integration of different services into a working solution. The institute led the European project IDIRA (www.idira.eu) where technological solutions for the management of large scale crises were developed. The focus of this project was to improve the interoperability between existing systems.

The recently successfully completed projects PrimAIR and CATO dealt with the development of software components for management of specific and severe crises. Further research projects within the Department Strategy and optimization are related to business processes, social media and logistical optimization algorithms.

#### 5.2.2 Dissemination Plan

Within the project timeframe as well as after the completion of EU-CIRCLE, several channels for disseminating the project progress and results are available. The first activity was to announce the successful project kick-off at the institutes' webpage, via Facebook and on the webpage of the Fraunhofer alliance "Energy". These channels will be used regularly to publish or link relevant project news e.g. for announcement of review meetings.

Appearances of Fraunhofer IVI at national and international fairs open up opportunities for the commercial marketing of the project results. Special fairs related to crisis management (e.g. INTERSCHUTZ) or general trade fairs provide excellent conditions for showcasing project contents or project results and promote networking with other stakeholders.

The presentation of project results at security and rescue-related conferences is also intended in order to address a wider audience. Active participation will be documented by peer-reviewed publications. Depending from project progress, coverage of EU-CIRCLE might be included in the annual institutes report.

Further, Fraunhofer IVI actively participates in internal networks and alliances of the Fraunhofer-Gesellschaft. The solutions from the project EU-CIRCLE are of interest to these specific alliances and can be presented at regular networking meetings.



# 5.3 Partner: Meteorologisk institutt

#### 5.3.1 Profile

The Norwegian Meteorological Institute (MET Norway) was founded in 1866. Today MET Norway has approximately 500 employees. The main office is in Oslo and there are regional offices in Tromsø and Bergen. Its basic mission is to contribute to the protection of life and property. MET Norway provides public meteorological services for both civil and military purposes. The main core R&D activities of MET Norway are: Developing and improving operational models for atmospheric, oceanic and ice forecasting as well as for environmental emergency services, and climate research. MET Norway has a long record of participation in international programs, and contribute to educating PhDs and Post-docs on a regular basis thanks to its close collaboration with (and proximity to) the University of Oslo. Norway is a member of the World Meteorological Organization (WMO), the European Centre for Medium Range Weather Forecasts (ECMWF), and the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT). The institute is actively involved in the work of these organisations. In the proposed project, MET Norway is interested in estimating future EU-CIRCLE weather statistics, daily precipitation and temperature in particular. The group has long experience in empirical-statistical downscaling, that identifies and uses established links between large and small scales to derive descriptions for local climate.

#### 5.3.2 Dissemination Plan

MET has long experience with outreach through weather forecasting and contact with media (national broadcasting corporation). Its visibility has also been high internationally with respect to both meteorology and climatology. The type of dissemination will involve scientific papers published in peer-reviewed literature, presentation at international science conferences (e.g. European Meteorological society), but also presentation of EU-CIRCLE towards a professional society for engineers in Norway, 'Tekna'.



# 5.4 Partner: The University of Exeter

#### 5.4.1 Profile

The Centre for Water Systems (CWS) is part of the College of Engineering, Mathematics and Physical Sciences at the University of Exeter (UNEXE) in the UK. The Centre is an internationally leading group specialising in the development and application of advanced computer based technologies for the water industry, and currently holds research contracts of about €5M, with strong industrial links. Hydro informatics and urban water management are the main themes, with key research areas in sustainability, risk-based decision support systems, data mining, simulation and optimisation. The Centre has links with leading academic groups around the world, including those in Europe, Asia, Australasia and Americas.

#### 5.4.2 Dissemination Plan

UNEXE/CWS could contribute to dissemination with the following:

- Scientific publications in peer-reviewed journals. The Centre has a very strong track record in producing
  high quality papers in journals with high impact. The specific persons from UNEXE/CWS involved in EUCIRCLE (e.g. Dragan Savic and Slobodan Djordjevic) have between them hundreds of publications and
  we are confident that we can add to the list with good papers coming from the UNEXE contribution to
  EU-CIRCLE.
- Participation in International Conferences, Trade Conferences and World Congresses in the field of (mainly) water-related issues. Apart from individual presentations, we propose to organise special session(s) about ICT/modelling issues related to EU-CIRCLE as side events to international conferences. For instance, Prof. Dragan Savic is a member of the Hydroinformatics Conference board, a biennial conference, which will take place in 2016 (too early-abstracts are due in a month and the project is not advanced enough yet) and 2018 (suitable, because it will be towards the end of the project). This Conference is just an example. We could select another conference (e.g. IAHR or CCWI).
- Help/assistance with clustering activities: Based on previous experience (ICT4WATER and CLIWASEC clusters) we could extend this special session to include the two other "sister" projects under the same call, i.e. organise a special session for the three projects together. In general we can help with clustering activities.
- Seminar(s) to post-graduate students about EU-CIRCLE by members of the consortium (i.e., from the
  other partners), during term time at the University of Exeter, as part of the postgraduate regular
  curriculum. These seminars are regular weekly events at UNEXE/CWS, attended by postgraduate
  students and young researchers, with external speakers. We could also video these lectures for
  further/wider dissemination.
- Organise a workshop/open dissemination event together with Torbay Council at the site of the case study, towards the end of the project.



# 5.5 Partner: Akademia Morska w Gdyni

#### 5.5.1 Profile

Gdynia Maritime University (GMU) is the largest state university of higher maritime education in Poland and one of the largest in Europe. The University's four Faculties offer degrees in Navigation, Marine Engineering, Marine Electrical Engineering and Business Administration. At present GMU provides studies for over 8000 students. The curriculums of studies satisfy both Polish educational standards provided by the Ministry of Education and also the requirements of the International Maritime Organization (IMO). More details can be found at <a href="http://www.am.gdynia.pl/en/">http://www.am.gdynia.pl/en/</a>.

#### 5.5.2 Dissemination Plan

GMU Team will mainly present its results at the International Conferences (Task 8.2): Summer Safety and Reliability Seminars - SSARS 2015-2018, <a href="http://ssars.am.gdynia.pl">http://ssars.am.gdynia.pl</a>; European Safety and Reliability Conferences - ESREL 2015-2018, <a href="https://esrel2015.ehtz.ch/">https://esrel2015.ehtz.ch/</a>; European Climate Change Adaptation Conference - ECCA 2016-2018, <a href="https://www.ecca2015.eu/">https://www.ecca2015.eu/</a>.

As a part of SSARS 2016-2018, GMU Team will organize Thematic Workshops on the following topics (Task 8.5):

- A general methodology on critical infrastructure safety aspects,
- Modelling safety of complex technical systems,
- Integrated critical infrastructure safety systems,
- Analysis and estimation of critical event parameters;

and consolidated in the form of Critical Infrastructure Safety Training System (CISTS) the package of the following, based on the e-learning concept, Training Courses (TC):

- TC 1. A general methodology on critical infrastructure safety aspects,
- TC 2. Safety of complex systems and processes,
- TC 3. Safety of multistate system with dependent components,
- TC 4. Modeling critical infrastructure operation process,
- TC 5. Modeling critical infrastructure safety,
- TC 6. Identification of critical infrastructure operation process,
- TC 7. Testing uniformity of statistical data coming from the critical infrastructure operation process,
- TC 8. Analysis and estimation of critical event parameters,
- TC 9. Identification of critical infrastructure components safety,
- TC 10. Prediction of critical infrastructure operation process,
- TC 11. Prediction of critical infrastructures safety,
- TC 12. Optimization of critical infrastructures operation and safety,
- TC 13. Modelling critical infrastructure accident consequences,
- TC 14. Optimization of critical infrastructure accident consequences,
- TC 15. Risk analysis of chemical spills at sea,
- TC 16. Strengthening critical infrastructure resilience to climate change,
- TC 17. Critical Infrastructure Safety Training System.

GMU Team scientific publications of generated knowledge will be offered to the open access scientific peer-reviewed Journal of Polish Safety and Reliability Association – JPSRA, <a href="http://jpsra.am.gdynia.pl">http://jpsra.am.gdynia.pl</a>. Some of them will also be proposed to other open access peer-reviewed journals and to the journals cited at the Web of Science.



At the end of the EU-CIRCLE project activity, as a main practical tool, a guidebook "Integrated Critical Infrastructure Safety System" will be completed and placed at the project website and the following monographs (M):

- M 1. Safety of Complex Systems and Processes,
- M 2. Risk Analysis of Chemical Spills at Sea,
- M 3. Safety of Multistate Systems with Dependent Components,
- M 4. Safety of Critical Infrastructures,
- M 5. Safety of Transport and Information Critical Infrastructure Network,
- M 6. Baltic Sea Area Critical Infrastructures Protection Related to Climate Changes,

will be offered for publishing to the internationally well recognized and prestigious publishers like Elsevier, John Wiley and Sons, Springer, Taylor and Francis.

Moreover, GMU will also contribute to Consolidated Dissemination Communication and Exploitation Plan (Task 8.1), Dissemination Actions including EU-Circle project issues promotion on the project web site, Gdynia Maritime University web site and Polish Safety and Reliability Association web site (Task 8.3), Communication to CI Stakeholders (Task 8.6), Development of Exploitation Model (Task 8.7) and Establishing Standards and Standardization Methodologies (Task 8.8).



#### 5.6 Partner: Artelia eau et environnement

#### 5.6.1 Profile

Artelia is an independent engineering, project management and consulting group that operates in the following nine markets: building construction, water, energy, environment, industry, maritime, multi-site projects, transportation and urban development. Artelia provides services to private clients (industrial groups, developers, investors, building contractors, banks, insurance companies, etc.) as well as to public clients (government departments, local authorities, public bodies, international funding agencies, etc.).

The structure of Artelia has been designed to conduct efficient management of major projects and provide relevant solutions to highly technical questions, while delivering quality services to its clients at local level. The group is engaged in a proactive research and innovation policy. Artelia has a regional network of 42 offices in France and an international network of 53 offices in 37 countries. In 2014, the group's consolidated turnover amounted to €366 million. It has a permanent staff of more than 3350 employees. The share of turnover related to international business is 30%, which includes the export activity of teams based in France and operations directly managed by the international subsidiaries. The group, whose profitability has always been good, is continuously expanding.

Artelia pursues and implements ambitious policies related to sustainable development, ethics and social responsibility, both in terms of its corporate behaviour and in the way it conducts its project assignments.

Artelia is made up of four sectors:

- Building Construction & Industrial Facilities
- Water & Environment
- Urban Development & Transportation
- Artelia International (network of international subsidiaries and branch offices)

### 5.6.2 Dissemination Plan

Artelia works with many actors in critical infrastructures, natural hazards management and adaptation to climate change activity sectors. In this context, Artelia intends to communicate on the project and its outcomes through:

- Its internal communication service: quarterly newsletter publications ("Artelia News") distributed to all our clients and partners in French and English versions, company website, Tweeter and LinkedIn accounts, etc.
- Targeted conferences and events (e.g. the annual French National Conference of Natural Hazards): in which Artelia usually has a stand and/or the opportunity to make some presentations;
- Scientific publications, to disseminate project results, mainly based on its implication in WP4 and WP6 (French case study).

Dissemination actions in France will be conducted in coordination with CEREN (see paragraph 5.8).



# 5.7 Partner: Satways

### 5.7.1 Profile

Satways Ltd. is founded in May 2006 and is based in Athens, Greece. The company is dedicated to develop integrated Geospatial command and control solutions for Security and Public Safety applications for Police, Coast Guard, Emergency Medical Service, Civil Protection and Fire & Rescue operations, critical public infrastructure protection, transportation security and border monitoring. With core technology built on open standards, Satways offers a range of mission critical enterprise solutions empowering governments and businesses around the world to make better and faster operational decisions. Its product line includes C2 and C3I enterprise software packages namely the Atlantis, AutoTrack, ENGAGE, ORASYS and S.A.F.E.R. that respond to different operational requirements of Public Safety Agencies such as Distributed Geospatial Data management, Operational Resources Tracking, Incident Management and Dispatch, Physical Security Information Management and Natural & Technological Hazards Crisis Management respectively. The common goal though, is to provide effective decision support, to simplify operations, to provide a Common Operational Picture (COP) and collaboration tools across organizations, to collect and disseminate data in the field and to coordinate response units and system users. Satways products are already used in 24x7 operational environments in the frame of several large scale commercial projects such as the C4I System of Qatar (2006-2007), the C4I System of Greece (2007-2008), the Hellenic Fire Brigade IMS/CAD system (2013-2014), the Forest Fire Crisis Management System of the Messinia Region, as well as in the frame of several research projects with some of those related to Emergency Management and Security, such as the IDIRA-FP7, the IMPRESS FP7, PREFER-FP7-SPACE, PEARL-FP7-ENV funded projects as well as other related to surveillance security such as PERSEUS-FP7, and lately EU-CIRCLE-H2020-SEC and INSPECT-H2020-SEC. In addition Satways is developing seismic and acoustic sensor based real time acquisition and analysis systems for various applications such as structural health monitoring and rapid damage assessment, vibration monitoring, critical infrastructure perimeter protection as well as detection, classification and tracking of vessels at sea.

In the frame of both commercial and research activities, Satways has established over the years a good number of partnerships with companies, Research Institutes, Universities and Public Bodies from Europe and abroad. Indicatively we can mention major companies like Siemens (D), Airbus Defence and Space (F), Indra Sistemas (SP), Intrasoft International (L), GMV Aerospace and Defence (SP), Israel Aerospace Industry (IL), Hellenic Aerospace Industry (GR), SkylineGlobe Inc (US), Research Institutes like Fraunhofer(D), NCSR Demokritos(GR), ICCS(GR), Salzburg Research(A), Universities like Kapodistrian University of Athens (GR), Hamburg University of Technology (D), National Technical University of Athens (GR), University of Exeter (UK), University of Illinois, University of Rome (I) and Public Bodies like the Center for Security Studies (GR), Hellenic Ministry of Defence (GR), Hellenic Coast Guard (GR), Italian Fire Brigade, Public Rescue and Civil Defence (I), Italian Ministry of Interior(I), UNESCO-IHE (NL).

# 5.7.2 Dissemination Plan

STWS will disseminate general information about the project through all their national (Greece) and international stakeholder channels. Main activities will be to demonstrate the new technical capabilities offered by the CIRP system that will be developed and their benefits in Consequence Risk Management of Critical Infrastructure due to Climate Change. The dissemination channels will be commercial fora, presentations to conferences, brochure distribution and demonstrations, newsletters, social media. STWS has also established collaboration with the NCSA (National Center for Supercomputing Applications) and plans to disseminate the project results to the NIST Center of Excellence in which the NCSA is a key member.



# 5.8 Partner: Entente pour la forêt Méditerranéenne / CEREN

#### 5.8.1 Profile

EPLFM is a government organization, coordinating the efforts of the 14 departments most affected by natural hazards of the South of France covering 4 regions: Provence Alpes Côte d'Azur, Languedoc-Roussillon, Corsica, and Rhône-Alpes.

The CEREN, was officially created on May 16, 1979 as the Test and Research Center of the ENTENTE, it is in charge of carrying out all the necessary tests in the area of Civil Protection, for the implementation of new systems and for their efficiency evaluation. These tests and experiments can be directly ordered either by the Entente/CEREN, by the Directorate of Defence and Civil Protection or by other Government Organisations. CEREN mostly deals with applied research, which is directly useful for Civil Protection users. The CEREN also collaborates with many researchers, industrial companies and users at a national and international level. It is in this context that we have initiated and participated in many European Research and Development programs.

# 5.8.2 Dissemination Plan

**French operational journals**: every trimester, EPLFM/CEREN is writing news and articles on specific journals whose readers are civil protection agencies and industrials.

**Case studies**: EPLFM/CEREN will organize the first case study during the EU-CIRCLE project on table top mod during which CI operators and national authorities will be present. This exercise will constitute a huge dissemination event to promote the outputs of the project.

**Project Workshops**: EPLFM/CEREN will invite many stakeholders in the consolidation and in the final workshop in order to highlight the EU-CIRCLE project objectives and outputs.

Congress: Each year, EPLFM/CEREN participates to a major event, the National Congress of French firefighters. It takes place every year in France, in a predefined department, and allows debating and defining expectations and future orientations of rescue services, thanks to the organization of about 20 conferences, and the exposure of new equipment, materials and systems dedicated to the rescue forces by 300 exhibitors (industrials, rescue services, authorities, etc.). It gathers French firefighters but also European and international rescue services. EPLFM/CEREN has a booth to present its activities, and will present the EU-CIRLCLE project thanks to the dissemination material provided by the various partners.

Social media: One final communication channel used to promote EU-CIRCLE is the social media, mainly Facebook and Twitter.

In this way, EPLFM/CEREN will use its accounts to promote regularly EU-CIRCLE toward end-users and other stakeholders. Its renown allows direct spread of the information to its large network. This means of dissemination is particularly adapted to promote case studies to various stakeholders, with short messages and specific keywords. EPLFM/CEREN counts hundreds of followers on Twitter (https://twitter.com/CEREN\_valabre), such as firefighting brigades, crisis management entities, Critical Infrastructure owners, prefectures, et cetera from France and from other European countries. The account will be regularly updated with EU-CIRCLE information, in French and English.

On EPLFM/CEREN Facebook account some specific pages will be devoted to the EU-CIRCLE objectives, current progress and outputs.



# 5.9 Partner: D'Appolonia S.p.a.

#### 5.9.1 Profile

D'Appolonia S.p.A., part of the RINA Group, is the largest fully independent Italian firm providing consulting & engineering services to Clients belonging both to the public and the private sector. The company operates in the markets of Energy, Transport and Infrastructures, Industry and Investor Support. With a staff of about 700 engineers, scientists and associated professionals located in 20 offices worldwide, D'Appolonia offers high-end services to investors, promoters, operators and contractors, as well as to insurers and public administrations, to support their initiatives. All D'Appolonia services are performed at the highest professional level, while taking into due consideration sustainability and health, safety and environmental targets. The company provides a wide range of services covering the whole project life cycle from feasibility and specialized technical studies to conceptual and detailed design, prototyping and testing, project management, site engineering as well as operation and maintenance management. Innovation is a key element in all our projects; D'Appolonia has over twenty years of experience in helping its clients in developing their new products and services as well as managing their collaborative innovation processes.

In EU-CIRCLE D'Appolonia is actively involved in different Work Packages with a main role in WP1, WP3, WP4 and WP8. In particular D'Appolonia will lead two activities (Task 1.4 "Consolidation Workshop" and Task 8.7 "Development of Exploitation Model") relevant and crucial for securing the dissemination plan of the project linking it with the stakeholder community and the exploitation of the project results.

#### 5.9.2 Dissemination Plan

In what follows the initial dissemination plan (up to M12 of the project) is provided

Dissemination channel	Achieved	To be planned	Target date	Target audience
Events	Conference on "Secure Societies" Invitation of EU-Circle Consortium to the Final Workshop on "Climate Technologies Transfer to Developing Countries" [DG-CLIMA, D'Appolonia, Royal Flemish Academy of Belgium for Sciences		Roma, 19 <sup>th</sup> May 2015 Brussels, 1 <sup>st</sup> July 2015	Stakeholders from the Institutions (UNEP, UNIDO, CTCN, European Commission, Ministries, National Designated Entities). Stakeholders involved in the activities targeting the adaptation and mitigation of climate change: SMEs and industrial representatives, technology providers, researchers, manufacturers,
	and Arts]	EU-Circle: Consolidation Workshop	Project Month: M12	consultants and associations.
		Sustainable places Conference, Savona, <a href="http://sustainable-places.eu/">http://sustainable-places.eu/</a>	16-18 September 2015,	Event organized by EURAC for "Smart and Sustainable Planning for Cities and Regions 2015" Paper submitted where Eu-Circle cited together with other projects
Journals		Crisis Response Journal, London	Quarterly released	Practitioners (operational units and decision makers in crisis management: response, recovery, prevention, preparedness)
Newsletters		Internal press	Monthly	RINA Group worldwide offices and



	release: RINA	released	main clients (stakeholders in naval
	Group		sector)
	(Certification		
	company)		



#### 5.10 Partner: Drzavni Hidrometeoroloski Zavod DHMZ

#### **5.10.1** Profile

Meteorological and Hydrological Service of Croatia (DHMZ) is a governmental scientific and technical organization established by the Government of the Republic of Croatia as the central state organization in the fields of meteorology, climatology and hydrology. DHMZ is responsible for: measurements and monitoring of meteorological and hydrological parameters and phenomena, data management, archiving and dissemination of data, products and information; analysis and forecast of atmospheric conditions and phenomena; climate change and related phenomena; transport and deposition of air pollutants; severe weather forecasts and emergency response activities; analysis, research and development of meteorological products and services for the public, governmental bodies and specific users; national and international exchange of data and information; international cooperation in the field of meteorology, climatology, hydrology and air pollution. DHMZ has a long experience of interactions with stakeholders, through the production of research results, directly usable for the implementation of public policies.

#### 5.10.2 Dissemination Plan

Dissemination and exploitation plan for Croatia has been created and will be carried out jointly by Croatian partners (for details please see Section 5.20 Partner: Veleuciliste Velika Gorica UVG). The scope of the integrated national plan is to avoid overlapping, maximise the impact and ensure high efficiency and effectiveness of the action. More specifically, all Croatian partners will individually engage to promote project in general and specific deliverables in particular, whilst in all occasions of dissemination and exploitation all three partners will be mentioned as the communication and project protagonists.

DHMZ individual activities will start to embed the project's information into our own webpage <a href="http://meteo.hr">http://meteo.hr</a> (in sections News and Projects). Content will be published in Croatian and English and it will ensure proper visibility of the official EU-CIRCLE web site and other project deliverables.

DHMZ produces and publishes a monthly magazine "Meteorological and Hydrological Bulletin" distributed to stakeholders (published in Croatian, available on-line). It will serve as one way to raise awareness of the project's aim and results to CI stakeholders.

DHMZ will actively pursue publishing professional and scientific publications. The Croatian journals like *Hrvatske vode* (interdisciplinary journal with the main goal of informing the professional and scientific public about the latest achievements in water management by means of publishing scientific and professional papers), *Gradjevinar* (monthly journal featuring research and professional papers and other contributions and articles from the field of civil engineering and other related fields) or *Promet – Traffic* (scientific journal on traffic and transportation research) will be selected for publishing papers on project's scope, objectives and outcomes.

DHMZ will organize dedicated seminar at the Faculty of Natural Sciences, University of Zagreb, with the scope of project presentation to the students and scientific community (early 2016).

In addition, DHMZ will disseminate EU-CIRCLE work through (inter)national conferences and workshops. EU-CIRCLE will be presented in the first upcoming occasion, i.e. 12<sup>th</sup> HRO CIGRE (International Council on Large Electric Systems) that will take place in November 2015 in Šibenik, Croatia. This conference will be used to present risk assessment from snow and ice on the CI in Croatia, particularly on the electricity sector.



### 5.11 Partner: Xuvasi ltd

#### **5.11.1** Profile

Xuvasi Ltd is a bespoke Research and Development organisation headquartered in Cardiff, South Wales (United Kingdom). Simply put, we solve a variety of complex real-world problems through the pragmatic application of emerging technologies. Xuvasi offers a range of capabilities spanning the full lifecycle from concept definition through to demonstrable proofs of concept. Once proven viable, Xuvasi operates as a Founder Studio launching spinout organisations to focus on the commercialisation of such proofs of concept.

Current Xuvasi technologies include computational topologies with guaranteed end-to-end processing, multi-language document processing pipelines, analyst workflow and pipeline toolkits, a 'big, fast data' substrate providing multi-dimensional views on data from disparate sources, and city-scale solutions for cybersecurity, operational effectiveness, and resilience.

Xuvasi personnel are extensive contributors to open-source projects, industry journals, and the wider network debates around emerging technology and its practical and pragmatic application in a variety of circumstances from smart cities to crisis zones.

For EU-CIRCLE, Xuvasi is extensively involved in the technical work packages WP5 and WP7; with leadership responsibility for WP7 – the SimICI environment providing a virtual evaluation space for EU-CIRCLE and related capabilities.

### 5.11.2 Dissemination Plan

The baseline dissemination plan for Xuvasi Ltd currently includes:

- Journals and Publications:
  - Crisis Response Journal (UK):
    - Invited article on Smart Cities and vulnerabilities (in process)
    - Other article opportunities to be discussed with the Editor.
  - City Security Magazine (UK):
    - Article opportunities to be explored with Editorial Schedule
- Industry Bodies:
  - London First (UK):
    - Articles, briefings, and events of relevance under discussion.
- Social Media:
  - o Channels such as LinkedIn, Twitter, and Medium:
    - Networks to be exploited through regular project promotions.
- Open-Source Community:
  - Engagement with open-source projects in domains relevant to SimICI



# 5.12 Partner: MRK Management Consultants GmbH

# **5.12.1** Profile

MRK Management Consultants GmbH has been a successful target-oriented management consultancy since 1971. Our wide-ranging portfolio of completed projects have included those in the fields of transport, energy, telecommunication & networks, infrastructure and automotive. Innovative, financially feasible solutions build the center of our consultancy services. MRK has Employees with a degree in Business Economics, Engineering, National Economics, Computer Science, Mathematics, Lawyers, Business Administrators, Consultants, Project Managers and other Experts. Our clients are national and international companies and institutions, local communities, authorities, transport associations and ministries. MRK supports its clients by creating innovative solutions and plays an active part in the implementation of all technical, organisational, economical and informational matters in your change process. In Munich is the Headquarter and our Subsidiaries are in Stuttgart, Munich, Luxembourg, Prague and Dresden.

#### 5.12.2 Dissemination Plan

MRK will provide a template for collecting EU-CIRCLE relevant event information (date, venue, deadlines, fees, topics, target groups, et cetera) to be filled and updated by each partner during the project. German events, such as conferences, workshops, congresses, symposia et cetera, are to be collected by MRK. MRK will also draw attention to international events and awards related to the topic of the project.

MRK will get the project results ready to be commercialised as part of the exploitation plan. Therefore, MRK will ensure that the output of the dissemination plan is closely associated with the exploitation measures in Task 8.7. The project outcomes can be put on the market as:

- an entire solution
- selected parts of the solution
- a service

The dissemination activities have strongly to be focused on this and other suitable marketing opportunities.



# 5.13 Partner: European University Cyprus (EUC) Ltd

#### **5.13.1** Profile

European University Cyprus (EUC) is a modern university, operating five Schools, namely, the School of Arts and Education Sciences, the School of Business Administration, the School of Humanities and Social Sciences, the School of Sciences, and the Medical School. All undergraduate and postgraduate programmes offered by EUC are recognised nationally and internationally. EUC belongs to Laureate International Universities, a US-based worldwide network of institutions of higher education founded in 1998. With a membership of over 80 accredited campus-based and online institutions in 29 countries throughout the Americas, Europe, Asia, Africa and the Middle East, the network encompasses more than 150 individual campuses and over 950,000 students worldwide.

The Centre for Risk, Safety and the Environment (CERISE) at EUC (Nicosia, Cyprus) has been established to advance a richer understanding of the nature of risk, particularly in the fields of occupational, industrial, natural and environmental hazards. CERISE is a multi-disciplinary research group with competencies across mathematical modelling, social and behavioural psychology, climate change and other environmental stressors, and in the understanding of the perils and processes that drive individual threats, and the implementation of risk reduction strategies. CERISE aims to develop novel methods in the analysis of risk and to assist individuals and organisations to improve the quality of their decision-making so as to effectively manage risk and uncertainty; particularly in relation to risks of low probability and high consequence e.g. natural disasters, industrial accidents, et cetera.

### 5.13.2 Dissemination Plan

European University Cyprus Ltd (EUC) is the primary point of contact for all dissemination and exploitation activities as WP8 task leader. EUC is also responsible for the high-level-management of all these activities. As identified in the EU-CIRCLE Grant Agreement this consolidated Dissemination and Exploitation Plan is identified as Deliverable8.1, and due dates M3, M12, M24. The plan is maintained through the lifetime of the project. Updates of the initial plan (at M12, M24) are included in the periodic activity reports. EUC leads the EU-CIRCLE Communication team in which all partner organizations can share their ideas, input and activities and the dissemination actions (regarding all communication means will be discussed).

EUC is also partner in WPs (1,3,4,6,7) and as such will take part in dissemination activities in these workpackages. EUC will, in all cases, play an active role in stimulating open access publications. Data from EU-CIRCLE will be part of the research of 2 PhD Theses. EUC staff will attend relevant conferences to create awareness of the EU-CIRCLE project, in coordination with the Project Coordinator.



# 5.14 Partner: Center for Security Studies KEMEA

#### **5.14.1** Profile

The Center for Security Studies (KEMEA) has been established as the Greek Ministry of Interior and Administrative Reconstruction (former Public Order & Citizen Protection) think tank on security policies. It provides advisory and consulting services to the Ministry and other Public and Private authorities on relevant issues and support the exchange of knowledge and the transfer of technology between the Greek public Services responsible for Law Enforcement and Civil Protection and the respective European stakeholders. The placement of KEMEA in the European landscape of security is highlighted by representing the Greek Government to the European Research and Innovation Forum (ESRIF) of the European Commission as well as by its membership to the Board of Directors of the European Organization for Security (EOS). Furthermore KEMEA has been appointed since 2011 (Presidential Decree No39/06.05.2011) as the "National Contact Point" for the protection of ECIs ("EPCIP contact point") of Directive 2008/114/EC of the Council of December 8th 2008 "regarding the definition and designation of the European Critical infrastructures and the assessment of the need to improve the protection of such infrastructures". Finally KEMEA is in charge of certifying the private security personnel in order to provide professional services in Greece.

#### 5.14.2 Dissemination Plan



# 5.15 Partner: The University of Salford

### **5.15.1** Profile

University of Salford (USAL) (http://www.salford.ac.uk/) is a well-established institution with state of the art facilities for research. According to a recent international league table, USAL has been ranked as one of the top universities in the world for the subject of Architecture and Built Environment. The School of the Built Environment of USAL continued its leading position in the QS World Ranking list of the world's top 50 universities, after the prestigious international university rankings organisation Quacquarelli Symonds (QS) placed the School 39th in the World and 4th in the UK. The rankings highlight the world's top universities in 36 individual subjects based on academic reputation and research impact. USAL is very experienced of conducting large research projects. For instance, between 1996 and 2009, it completed over £60M of funded research including major EU research projects and networks. USAL's Centre for Disaster Resilience (CDR) (www.salford.ac.uk/disaster-resilience) conducts funded projects that research into developing societal resilience to disasters and disruptive events caused by hazards. It is a leading Centre in the UK promoting multidisciplinary nature of the management of societal challenges and undertakes cooperative research with a large number of international partners. CDR has extensive experience in working in the South Asian Region having well established links with Sri Lanka, Bangladesh, Malaysia and Thailand, particularly in the areas of disaster management, critical infrastructure, adaptation and resilience. It currently leads international projects with several international partners. CDR works quite closely with the THINKlab (http://www.salford.ac.uk/thinklab) at USAL as part of the visualisation platform for disaster resilience. THINKlab is a futuristic and spacious research environment with state-of-the-art facilities. The space facilitates research related to Information and Communication Technologies, providing answers to challenges faced by industry, commerce and the community.

### 5.15.2 Dissemination Plan

The dissemination plan will facilitate to disseminate and exploit the outcomes of the project, where the contents for dissemination, the target audience, the contributors, and realistic time scales are to be clearly identified. The following plan proposes some journals to disseminate the outcomes mainly based on WP4 deliverables 4.1 and 4.3, and case study in Bangladesh. In addition to the below, USAL will disseminate the project outcomes at the appropriate conferences. One of the target conferences will be the 6th International Disaster and Risk Conference IDRC Davos 2016: 'Integrative Risk Management - towards resilient societies', 28 August - 01 September 2016, Davos, Switzerland.

	Dissemination Plan - USAL									
	Target Journal	Coverage	Time scales							
1	Disaster Prevention and Management OR International Journal of Critical Infrastructure Protection	The systematic review of literature to define CI and its resilience to climate change	M13 (Jun – 2016)							
2	International Journal of Disaster Risk Reduction	CI resilience framework to climate hazards (after validation)	M28 (Sep – 2017)							
3	Built Environment Project and Asset Management	Bangladesh Case study findings	M38 (July – 2018)							



# 5.16 Partner: Drzavna Uprava za Zastitu i Spasavanje

#### **5.16.1** Profile

National Protection and Rescue Directorate is an independent, professional and administrative organization in the Republic of Croatia with a duty to prepare, plan and manage the operational forces and coordinates the activities of all participants of protection and rescue system.

The National Protection and Rescue Directorate is divided into organizational entities. The central national administration consists of the Directors Cabinet, International Cooperation Department and the Internal Affairs Department as well as five sectors:

- Civil Protection Sector
- Fire Fighting Sector
- National protection and rescue information and communication system
- Fire Fighting and Protection and Rescue School
- General Affairs Division

The basic tasks of the National Protection and Rescue Directorate are stipulated by the Law on protection and rescue. The most important tasks are risk and vulnerability assessment, drafting measures aimed at preventing crises and accidents, ensuring that these measures are implemented, and effective emergency management in case of major disasters.

#### NPRD also:

- performs the assessment of risks of disasters and major accidents to the field, cause or entity, and
  is responsible for drafting the assessment of vulnerability and protection and rescue plans of local
  and territorial (regional) self-government
- monitor and analyse the situation in the field of protection and rescue and propose to the Croatian Government measures to improve the situation and guide the development of the system of protection and rescue
- is a single information database on operational forces, means and measures taken in the field of protection and rescue
- delivers training and development programs, and enabling participants to learn and improve protection and rescue
- organizes and conducts exercises participants rescue, in order to verify their qualifications
- holder is drafting bylaws and standard operating procedures
- examine the equipment and resources to protect and rescue, identifies needs and submit a proposal for the adoption of Croatian standards in this area
- collaborates with industry and academic institutions in the development of technology and equipment for protection and rescue
- cooperate with the competent authorities of other countries and international organizations in the protection and rescue
- performs advertising and publishing activities in the field of protection and rescue

#### 5.16.2 Dissemination Plan

Dissemination and exploitation plan for Croatia has been created and will be carried out jointly by Croatian partners (for a details please see Section 5.20 Partner: Veleuciliste Velika Gorica UVG).

The scope of integrated national plan is to avoid overlapping, maximise the impact and ensure high efficiency and effectiveness of the action. More specifically, all Croatian partners will individually engage to promote project in general and specific deliverables in particular, whilst in all occasions of dissemination and exploitation all three partners will be mentioned as the communication and project protagonists.



# 5.17 Partner: Aditess: Advanced integrated Technology solutions & services

#### **5.17.1** Profile

ADITESS is a Cyprus-based Small Medium Enterprise (SME) established in 2011. ADITESS is a scientific, consulting and research company whose purpose is to conduct theoretical and applied research and to produce studies, in strategic and in tactical level, on issues concerning Security policies, Critical Infrastructure Protection, Transportation and Cargo Security and Border Management and to develop state of the art applied Security Solutions at the above mentioned areas. ADITESS has the ability to provide advisory and consulting services to various Government Organizations and other Public and Private authorities on these same issues. ADITESS has experience with state-of-the-art machine learning algorithms, image processing algorithms, and the ability to work with large data sets. Key aspects of our experience are noise-robust pattern recognition algorithms and the use of invariant feature representations. We can design and implement such algorithms and also incorporate them in the design of an overall working system. ADITESS has the knowledge and the operational experience to define the enduser requirements for border guards and decision-makers and to facilitate the external Board of Experts: Our personnel come with Police and military background not only at National level but also in International (NATO) environment, serving in NATO major regional commands and participating in major NATO-led operations. Through our strong collaborations with the end-user community we can also define the test cases and set up the evaluation criteria for the project outcome.

#### 5.17.2 Dissemination Plan

ADITESS based on its profile is planning the following dissemination activities:

# **International Conferences and Journals**

• Contribution at the preparation of papers targeting international conferences and journals.

#### **Exhibitions related to EU-CIRCLE topic**

• At least one more exhibition of EU-CIRCLE project including poster, presentation, dissemination material to be determined yet.

# Online dissemination materials

- In charge of the Project website
- Contribution for the production of EU-CIRCLE brochure & newsletters
- ADITESS will look for any opportunities to propose articles and news on newsletters and mailing lists of organizations in which ADITESS is a member, or in any case focused on the EU-CIRCLE topic.
- Newsletters, brochure, and other project dissemination materials will be distributed via on-line channels taking advantage of ADITESS established contacts at local and International level.
- Social media dissemination
- Article in online news portal

#### Non on-line dissemination materials

ADITESS will disseminate printed version of brochures, newsletters on conferences, workshops, meetings with subjects potentially interested on EU-CIRCLE.

# **Multimedia files**

ADITESS will try to use company's contacts in order to take part in a TV news show. The target will be to provide information for the project, as well as, to prepare the Cyprus market for the commercialization of product/services of EU-CIRCLE solutions

### **End-user workshops**

 ADITESS will have several meetings with potential end-users at local level in order to create a target group interested in the project development, and to receive relevant feedback. Such meetings will be held anytime a potential stakeholder will be contacted in the future.



### Linking activities with related projects

European Enterprise Network Cyprus (<a href="http://www.bsccyprus.org.cy">http://www.bsccyprus.org.cy</a> part of <a href="http://www.bsccyprus.org.cy">www.een.ec.europa.eu</a>)

#### Communication activities & means

Target groups:

- Meeting with Research Promotion Foundation <a href="http://research.org.cy">http://research.org.cy</a> in order to introduce the EU-CIRCLE project and future use of EEN platform (that RPF coordinate in Cyprus) for dissemination of outputs as well as help on exploitation and commercialization of the product/service /output of the project. Founded in 1996, the Research Promotion Foundation (RPF) was established at the initiative of the Government of the Republic of Cyprus, to promote the development of scientific and technological research in Cyprus due to the fundamental importance of research in contemporary societies. The Foundation's core objective is the promotion of scientific and technological research in Cyprus. Several specific objectives and priorities have been defined by the Foundation's Statute and the decisions of its Board of Directors, for the promotion of this main objective.
- Meeting with Cyprus Civil Defence http://www.moi.gov.cy in order to introduce the EU-CIRCLE project. The Cyprus Civil Defence is at the moment, an organized force in the areas which are controlled by the Republic of Cyprus. The Force's objective is to increase the quality of its services, through better education, equipment and resources, the development and continuous improvement of new projects in the field of defence policy, while ensuring that the population is informed of self-protection measures. The Civil Defence's mission is to take preventive, repressive and supporting humanitarian measures in order to protect the population and its property, as well as the environment and critical infrastructure from the effects of disasters either natural (earthquakes, floods, tornadoes etc.) or manmade (technological accidents, armed conflict, etc.). It also aims to provide the necessary conditions for the population's survival and recovery following a disaster.



# 5.18 Partner: Torbay council

### **5.18.1** Profile

Torbay Council is a Unitary Authority which covers the towns of Torquay, Paignton and Brixham in the UK. We deliver over 700 services to more than 130,000 residents and the many visitors who come to the Bay every year. The Council's Engineering Section have a vast experience in the design and maintenance of drainage, structures, urban design and specialist services which includes coastal defences, landfill sites and cliffs. Within the drainage team we undertake all our own hydraulic modelling using Infoworks ICM. We are well known across the UK for our expertise in flooding and we sit on a number of national bodies/committees including representing all local authorities on the CIWEM Urban Drainage Group Committee. We have strong links with other national bodies including the Environment Agency and DEFRA. In addition we are involved with a number of Universities on research and development projects including Exeter University and Imperial College.

Torbay Council's Engineering Section have been or are currently involved in a number of research and development projects, including: DEFRA Making Space for Water, completed in 2008; UKWIR/FRMRC Integrated Urban Drainage Demonstration Project, completed in 2009; EU RainGain Project due for completion this year and DEFRA Pathfinder Project on Community Engagement which is due to be completed later this year.

#### 5.18.2 Dissemination Plan

Torbay Council will be the main partner providing data and links to the Torbay Case Study for Coastal Flooding. In this case study we will be working in close cooperation with Exeter University and therefore we will work with Exeter University on the dissemination of the results from the case study and the overall project.

In addition to the joint dissemination of results with Exeter University it is proposed that we will submit a paper to the CIWEM Urban Drainage Group annual conference to present the outcomes from the EU Circle Project.



# 5.19 Partner: Hellenic Ministry of Defence, Hellenic National Meteorological Service

#### **5.19.1** Profile

The Hellenic Ministry of Defence (HMOD) applies the Government's National Defence Policy. HMOD implements interventions focusing on the facilitation of the interaction with citizens like the digitalization of recruitment archives and services, the generation of digital charts and weather reports and also incorporates departments and units that address social issues like public protection, crisis managements, search and rescue operations, humanitarian aid and social and environmental research. Therefore, HMOD incarnates a very important social role in everyday life of Greek citizens and people. Navy Lighthouses' Service, Hellenic National Meteorological Service, Hellenic Military Geographical Service are some examples that prove the aforementioned interventions.

Specifically, the Hellenic National Meteorological Service (HNMS) was founded in 1931 and operates under the auspices of the Hellenic Air Force General Staff, of HMOD. Its mission is to provide meteorological support to national defence and economy and to the safety of life and property. It disseminates weather information to the public (forecasts and warnings), governmental organisations and civil protection, aiming at the safety of aviation and shipping, the economic growth and a sustainable environment. HNMS has established a number of European and International cooperation in order to improve its services to the customers and also to contribute to the development of the meteorological services at European and International level. It represents Greece in the following international meteorological organizations: WMO, ECMWF, EUMETSAT, EIG-EUMETNET, ECOMET. National cooperation has been established between HNMS and Universities, Research Institutes and Governmental Bodies such as General Secretariat for Civil Protection. By these cooperation, HNMS is aiming at improving the services provided to the customers and promoting its research activities. In parallel, over the past years, HNMS conducts research on meteorology and climate participating in a variety of projects funded by national or/and EU resources. HNMS has been independently audited and certified to be in conformance with ISO 9001: 2008 by DQS Hellas and applies a Quality Management System in line with the above Standard for the Provision of Aeronautical Meteorological support, meteorological observations, production and provision of forecasting products and aeronautical briefing.

#### 5.19.2 Dissemination Plan

Within the EU-CIRCLE project framework, part of the dissemination procedure will be the announcement of the project news with regular updates, via the Hellenic National Meteorological Service (HNMS) web page, which is addressed directly to the public.

Moreover, the project results are planned to be presented to the General Secretariat of Civil Protection which is by law, the National Service responsible for the planning, organization and coordination of action for the prevention and management of natural, technological and other disasters and has also the responsibility to inform the public on these issues.

Additionally, as part of HNMS's dissemination plan, is the presentation of the project activities and its results to a number of Organizations of Meteorological interest where HNMS is a member, such as, the World Meteorological Organization (WMO) and the Economic Interest Grouping of European Meteorological Service Network (EIG-EUMETNET).

Finally, HNMS's active participation to the project will be documented in a number of scientific publications.



### 5.20 Partner: Veleuciliste Velika Gorica

#### **5.20.1** Profile

University of Applied Science Velika Gorica is a higher education institution founded in 2003 offering courses for deficit professions as it strives to align with labour market needs in an innovative way. The mission of the University is development, continued modernization and implementation of graduate courses, life-long learning programs and realization of professional and scientific activities in the areas of crisis management, optometry, information technologies, motor vehicle maintenance and aircraft engineering. University's vision is to become a renowned and technologically contemporary educational institution with unique courses in the Republic of Croatia and its surroundings.

### 5.20.2 Dissemination Plan

An overview of consolidated dissemination and exploitation plan for Croatia (for details please see Section 5.10 Partner: Državni Hidrometeorološki Zavod DHMZ) is given below:

	Action, dissemination channel(s) and tools	Purpose of action	Date	Target audience							Responsible partner						
Exploitable deliverables/ Milestones				Academic	Scientific	community Business	Cl community -	owners CI community -	operators Decision and	policy-makers	Students	Related projects	Media	Wider public	UVG	DHMZ	NPRD
D1.1	Partners' website, social media, direct mailing	Exploitation	09.2015														
D1.2	Partners' website, social media, student magazine	Dissemination	05.2015														
D1.3	Partners' website, social media, student magazine	Dissemination	11.2015														
D1.6	Partners' website, social media, student magazine	Dissemination	05.2016														
D2.1	Partners' website	Dissemination	01.2017														
D3.5	Specialized magazines	Dissemination	01.2018														
		Dissemination															
D4.3	Partners' website, social media, student magazine	Exploitation	06.2017														
D4.5	Partners' website, specialized magazines, social media, press release	Dissemination	05.2017														
D4.7	Partners' website, specialized magazine, social media	Dissemination	07.2017														
	Partners' website, direct mailing, specialized magazines, student magazine,																
D5.4	social media, press release, press conference	Dissemination	04.2017														
	Partners' website, social media, student magazine, press release, info session																
D6.11	for students	Dissemination	06.2018														
D7.1	Partners' website, social media, direct mailing, webinar (if applicable)	Exploitation	11.2016														
D7.2	Partners' website, direct mailing	Exploitation	03.2017														
D7.4	Webinar (if applicable)	Exploitation	06.2017														
D8.4	Partners' website, social media, press conference, student magazine	Dissemination	09.2015														
D8.7	Press conference	Dissemination	06.2018														
	Newsletter produced within project will be translated in Croatian and																
	distributed to relevant CI and other stakeholders. There is an open possibility		as in the														
	of adding introduction to the letter in order to highlight work progress of		project														
D8.9	Croatian partners.	Dissemination	plan														
Project start	Press conference, partners' website, social media	Dissemination	09.2015														
RECIPE Workshops	Workshops organized in Croatia and Serbia within RECIPE project. The opportunity will be used to present EU Circle project to Serbian and Swedish partners.	Dissemination	10.2015														
International			05.2016 05.2017														
conference	Crisis Management Days in Split, Croatia - annual event organized by UVG.  2-days conference in Split, Croatia, organized within RECIPE project. The event	Dissemination	05.2018		+	+	-		+								
International	will be used to present EU Cricle project to global CI stakeholders and other																
conference	attendees.	Dissemination	05.2016														
Charles	10-days intensitve training on crisis management for UVG students organized	D'	07.2047														
Student training	on annual basis. To be utilized for dissemination of the project and possibly exploitation of SimICI and CIRP results.	Dissemination Exploitation	07.2017														
uannig	•	Exploitation	07.2018		+	_		+		_	_						
	Publication produced within RECIPE project will provide instructions on how to achieve a more efficient CI risk management. Expected action means																
RECIPE	exploring possibilities to establish link between two projects and to offer																
Guidelines	more information on EU Circle project in the RECIPE deliverable.	Exploitation	01.2016														
Seminar	Dedicated seminar at the Faculty of Natural Sciences (University of Zagreb) with the scope of project presentation.	Dissemination	2016														
International	International Council on Large Electronic Systems - 12th HRO CIGRE. The event																
conference	in Šibenik, Croatia, will be used to present EU Cricle project to attendees.	Dissemination	11.2015	<u></u>			L	$\perp$									
		1	2016					Т			ヿ						
	Committment to identify national and regional science events appropriate for	Dissemination	2017								I						
Science events	project dissemination and exploitation of results in the later project stage.	Exploitation	2018								I						
Project closing	Press conference, partners' website, social media	Dissemination	06.2018														



# 6 Evaluation and Reporting

The success of the activities set out in the D&E Plan depend on their regular monitoring and evaluation, throughout the project's lifetime, so as to measure their impact in 'real-time' and adapt the D&E Plan in order to achieve the Plan's aim. As such the D&E Plan will be a 'living document' and will undergo several revisions during the project's lifetime; this is expected to maximise success and visibility (EU-CIRCLE will update the Dissemination and Exploitation Plan in M12 and M24).

Key Performance Indicators (KPIs) have been defined per type of communication activity which will be continually measured and monitored. The progress of the D&E Plan will be reported in periodic activity reports. The paragraphs below describe the KPIs that have been defined and the reporting activities related to the D&E Plan.

# 6.1 Key Performance Indicators

The following table (Table 6) exhibits the KPI's defined by the EU-CIRCLE consortium:

Table 6: EU-CIRCLE Key Performance Indicators for Dissemination activities (36 month period)							
Communication	Objective, target and						
Channel	Key Performance Indicator						
Website	Action: Wide scale dissemination. Link to EU added value on homepage. Reinforced by pointers in social media and press.  Target KPI: Hits: <5000 – poor, 5000-10000 – good, 10000+ – excellent. Deliverable downloads: <50 – poor, 50-100 – good, 100+ - excellent						
Project updates on EU-CIRCLE	Action: > 20 updates						
Website	Target KPI: > 3000 views/update/year						
Online tools and Social Media	EU-CIRCLE partners' presence is reviewed by social media monitoring tools biannually on LinkedIn and Facebook Groups.  Target KPI: Number of followers: <50 – poor, 50-100 – good, 100+ - excellent						
Sharing project news on social media (e.g. LinkedIn, Twitter, Facebook, et cetera)	Action: > 40 shares  Target KPI: > 50 likes / share, > 5 comments / share						
Linkedin EU-CIRCLE group	Action: Creation of the EU-CIRCLE Linkedin group						
	<b>Target KPI</b> : <200 – poor, 200-300 – good, 500+ - excellent						
Online publishing (online magazines, newspapers, blogs)	Action: > 20 publications  Target KPI: > 500 views/publication/year						
Organisation of Final Workshop	Target KPI: > 150 participants						
Scientific publications	Action: Number of conference presentations						
	Target KPI: <3 – poor, 3-7 – good, 7+ - excellent						
	Action: Number of open Access papers submitted						
	Target KPI: <3 – poor, 3-5 – good, 5+ - excellent						
CIRP appraisal by the	Target KPI: Number of trials: <20 – poor, 20-40 – good, 40+ - excellent						
community	Target KPI: Tool contribution: <10 – poor, 10-50 – good, 50+ - excellent						
Networking with other relevant projects	Target KPI: > 5 projects						



# 6.2 Reporting

In order to facilitate the reporting activities of the D&E Plan, a 'Delivery Report' template has been designed, which will be used by all partners to report on each dissemination and exploitation activity undertaken. These Delivery Reports, as well as an analysis of the KPIs, will feed into the annual progress reports on the execution of the D&E Plan and its progress in meeting its objectives. Essentially all these deliveries are available on the EU-CIRCLE website.

The annual progress reports will inform the consortium and EU-CIRCLE's Project Officer on the progress and success of the project's dissemination activities. In addition, the progress reports will be used to assess the effectiveness of the D&E Plan based on specific quantitative KPIs, as defined in Section 8.1.

These reports must include all dissemination activities that have been carried out in the reporting period, both by the consortium as a whole and by individual partners. The reports will include communication results, corrective actions for improvements and recommendation for updating the D&E Plan. An outline of the project communication report is illustrated below:

- List of communication activities (workshop, scientific publications, press releases...)
- Description of communication activities and the main outcomes
- List of on-line communication activities (e.g. Linkedin, Twitter, online discussions, website)
- Analysis and statistics for communication activities conducted during the reporting period
- Assessment on the performance of the EU-CIRCLE D&E Plan
- Recommendation for updates and corrective actions to the D&E Plan
- Conclusions

Responsibility for the preparation of these progress reports lies with EUC with input from all partners.



### 7 Conclusion

A well designed and implemented Dissemination and Exploitation Plan is the best strategy for raising awareness of the project's impacts and for capitalising and exploiting its results.

This document sets out the main parts of the EU-CIRCLE D&E Plan at the start of the project. The D&E Plan defines the actions required for meeting the objectives of EU-CIRCLE in relation to dissemination and exploitation, as they are identified at the current moment. This Plan identifies the main target groups based on the EU-CIRCLE concept, its objectives and application areas; and appropriate sets of messages for the identified target groups have been defined. Also a Communication Team is enrolled with all partner organisations to implement the D&E Planned activities.

In order to maximise the visibility of our project we will be using multiple communication channels; using a blend of 'traditional' and online channels, among which major social media. A well designed project website has been developed and has been launched before the end of M3. We have also started developing a multilingual interface in order to increase the visibility of the project and attract interested organisations and individuals from across the project's countries. An EU-CIRCLE Linkedin group and Twitter account have been created to increase the project's visibility within the professional community.

Performance evaluation of the EU-CIRCLE D&E Plan is an important element of the plan itself. Therefore, a number of relevant Key Performance Indicators (KPIs) were defined along with the procedures for evaluation and reporting. In total, three project reports will be delivered (by the Project Coordinator to the EU) in M12, M24 and M36, with the input from EUC regarding the Dissemination and Exploitation achievements.



# 8 Annex 1 FIRST PRESS RELEASE





# 9 ANNEX 2 List of Work Packages, Lead Partners, timing and duration

Table 6: EU-CIRCLE WORK PACKAGES							
WP name	Lead partner	Start-End Month					
WP1	KEMEA	1 - 12					
Setting the Operational Environment							
WP2	NATIONAL CENTER FOR	3 - 33					
Climatic Data Capture and Processing	SCIENTIFIC RESEARCH						
WP3	Fraunhofer	6 - 33					
Critical Infrastructure Risk Model for							
Climate Hazards							
WP4	ARTELIA EAU ET	3 - 33					
CI Resilience and Adaptation to	ENVIRONNEMENT SAS						
Climate Change							
WP5	SATWAYS	7 - 33					
Climate Infrastructure Resilience							
Platform							
WP6	AKADEMIA MORSKA W	19 - 36					
Case Studies and EU-CIRCLE	GDYNI						
Assessment							
WP7	XUVASI	3 36					
SimICI : Reference Simulated Network							
of Interconnected Critical							
Infrastructures							
WP8	EUC (AS CYPRUS	1 36					
Dissemination and Exploitation	COLLEGE LIMITED)						
WP9	NATIONAL CENTER FOR	1 - 36					
Management	SCIENTIFIC RESEARCH						