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RESILIENCE TO COPE WITH CLIMATE CHANGE IN URBAN AREAS.

# DISSEMINATION AND EXPLOITATION PLAN (UPDATED VERSION)

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### **Document history**

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08/01/2019	Final	Marc Velasco	The reviews of the internal and external reviewers have been included



### Changes with respect to the DoA

Initially, this document was supposed to be called Exploitation Plan, but following the recommendations of the EC Project Advisor, the Dissemination part was included. This was formally announced on the first amendment done to the GA on early 2017. This is why D7.7 is now called "Dissemination and Exploitation Plan".

### 1. Dissemination and uptake

**Public** 

### 2. Short Summary of results (<250 words)

The potential of the RESCCUE outputs is high because the set of models and tools generated will have a high TRL value and thus, its exploitation and business capabilities have to be properly studied along the project.

This is why this The Dissemination and Exploitation Plan (DEP) has been created, to ensure an optimal dissemination and exploitation of project results. Once all exploitable results have been identified, the most adequate commercialization vehicles some of them have been defined in the Business Plan (D7.3).

This Dissemination and Exploitation Plan follows the evolution of the project from the proposal until the submission of the final project report, as well as the next 4 years in which exploitation of results must be ensured. This Plan addresses the points set in the Fact sheet defined by the European IPR Helpdesk.

The structure of the deliverable is organized into the following sections:

- 1. Introduction
- 2. Objectives
- 3. Identification of key results of the project
- 4. Communication and Dissemination Plan
- 5. Exploitation Plan
- 6. Dissemination and exploitation actions

As it is explained in section 3, there is a wide variety of results that will be produced within the RESCCUE project. Some of them could be commercialized but some others couldn't. However, both of them should be either disseminated or exploited. Accordingly, for each one of the identified results, a datasheet has been developed describing the actions to exploit or disseminate them, the target group of such actions and the responsible and timing to perform them.

Proper exploitation of results allows to profit from application and/or commercialisation of the intellectual assets or knowledge acquired during the project. However, given the fact that in many cases the majority of the expected results will be available towards the end of the project and exploitation obligations remain in force up to four years after the project end, this D7.7 is just a second version of the Dissemination and Exploitation Plan, which will be further updated on M48, where additional results will be analysed.



# **3. Evidence of accomplishment** This report



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# 1 Introduction

This document is developed as part of RESCCUE (RESilience to cope with Climate Change in Urban arEas - a multisectorial approach focusing on water) project, which has received funding from the European Union's Horizon 2020 Research and Innovation program, under the Grant Agreement number 700174.

The Dissemination and Exploitation Plan (DEP) corresponds to Deliverable 7.4 of Work Package 7 (WP7) – Dissemination and Exploitation. WP7 will ensure an optimal dissemination and exploitation of project results by accomplishing the following objectives:

- Raise awareness among climate change and urban resilience audiences in order to stimulate social engagement
- Allow both general and specialised public to access information about the project progress and its outcomes, ensuring a successful run-time and dissemination of project achievements and results to all relevant stakeholders
- Promote and encourage communication among stakeholder community
- Promote and encourage the widest possible application of project methodologies and outcomes beyond the lifetime of the project, by developing an Exploitation Plan
- Ensure that the Intellectual Property Rights of the consortium are properly protected
- Increase the benefits of the outcomes of the project with the creation of the RESCCUE Business Plan

First of all, it should be pointed out the closing link between dissemination and exploitation. Dissemination (sharing research results with potential users - peers in the research field, industry, other commercial players and policymakers) - feeds into exploitation (using results for commercial purposes or in public policymaking). Accordingly, there's often some overlap between dissemination, exploitation and communication, especially for close-to-market projects such as RESCCUE project.

In particular, **dissemination activities** are focused on transferring project results through various channels such as congresses, publications, etc. in order to reach the different end users of the technology. In this sense, one of the first tasks within the dissemination plan is to develop a list of major international exhibitions and conferences related to urban resilience to disseminate results and to carry out networking actions. In parallel, promotional materials will be prepared in collaboration with the project partners with the aim to present the project in a summarised way.

On the other hand, the purpose of the **Exploitation Plan** is to provide a formal planning document for using and exploiting knowledge throughout the project. The plan facilitates the common understanding of the aims of the exploitation activities, and assures that the dissemination and exploitation do not interfere with the IPR management, but serve it. In this sense, the exploitation of the results of RESCCUE project has been defined in coordination with an exhaustive protection of the intellectual property of both the background of project partners and the foreground results expected.



Moreover, the Exploitation Plan is designed to promote the adoption of the project solutions after its termination. In fact, it represents a key tool in order to take advantage in an effective and planned way of the dissemination channels to be used within the project, avoiding improvisation and over expenditures. Accordingly, it addresses socio-economic impacts, through studies performed towards the end of the project. Key Performance Indicators of the project that can be made public are selected to measure the project impact. This selection is done under the supervision of the developer partners. This study also exploits the feedback received from potential end-users during dissemination events.

The DEP follows the evolution of the project from the proposal until the submission of the final project report, accordingly, apart from the first version of the plan submitted in M15, and this version to be submitted on M24, another updated version of this D7.7 will be presented in M48. This Plan addresses the points set in the Fact sheet defined by the European IPR Helpdesk<sup>1</sup>.

Additionally, the content and objectives of the Dissemination and Exploitation Plan are complemented by Deliverable 7.3. Business Plan, whose objective is to define the most adequate commercialization vehicles of the identified results together with the identification of the opportunities, market assessment and barriers to perform such exploitation.

After this introduction, the structure of the deliverable is organized in the following sections:

- 2. Objectives
- 3. Communication and Dissemination Plan
- 4. Exploitation Plan

# 2 Objectives

The general objective of the DEP is to define the beneficiaries' strategy and concrete actions related to the protection, communication, dissemination and exploitation of the RESCCUE project results. Accordingly, the main questions that the DEP should answer are:

- What kind of needs does the project respond to?
- What kind of problem will the proposed solution solve and why will this solution be better than existing ones and in which areas?
- What new knowledge (results) will the project generate (assessment of the state of the art)?
- Who will use these results?
- What benefits will be delivered and how much benefit?

<sup>&</sup>lt;sup>1</sup> European IPR Helpdesk 2015 The Plan for the Exploitation and Dissemination of Results in Horizon 2020.



- How will end users be informed about the generated results?
- When will they be informed? (timeline of the planned communication...)

To accomplish the main objectives, the key aspects analysed in this Dissemination and Exploitation Plan are:

- analysis of the potential project results and how will they be exploited and disseminated;
- analyses on the intellectual property that is needed and will be brought to the project, including for example information on knowledge and inventions
- facts and figures on the planned exploitable results and their areas of application and intellectual property protection to evaluate their potential impact;
- description of the exploitation roadmap;
- description and timeline of the planned communication and dissemination activities (e.g. scientific publications, organisation of conferences, creation of a website), including Open Access to scientific publications resulting from Horizon 2020 actions;
- measurement of the impact of communication and dissemination activities.



# 3 Identification of project results

In this section, a thorough analysis of all the project results has been compiled and summarized in Table 1. They have been classified per WP, and information regarding the type of result, owner(s), the delivery date, background, dissemination, exploitation, TRL level and protection is also described.

The information presented in this Table 1 is a current identification of the project results, but since this dissemination and exploitation plan will be also updated in M48, some of these results might change in the future. For now, the results have been classified as datasets, methodologies, models, tools, software and publications. Some more categories might appear in the future, such as patents or others, but for now, these are the types or results produced or expected.

Regarding datasets, we should also point out that the use/reuse of the data generated by the project is a specific issue being tackled in detail in deliverable 8.5 Data Management Plan. There it is described how each dataset should be made available, which should be public and which shouldn't, and the corresponding metadata catalogue to make sure that all the results are easily found and identified.



### Table 1 Analysis of the results of the RESCCUE Project

Code	Result	Туре	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCC UE	To be protected?
1-Met	FIC climate statistical downscaling method	Methodology	1	FIC	M12	Yes	Yes	Yes	5	7	No
2-Data	Seasonal-to-decadal downscaled simulations	Dataset	1	FIC	M18	No	Yes	No	-	1	No
3-Met	Extreme rainfall development methodology	Methodology	1	FIC, Aquatec	M24	Yes	Yes	Yes	4	7	No
4-Data	Climatic change scenarios of extreme events	Dataset	1	FIC, Aquatec	M24	No	Yes	No	-	1	No
5-Met	Seasonal-to-decadal downscaled method	Methodology	1	FIC	M24	Yes	Yes	Yes	4	7	No
6-Mod	Hydrological and water quality models	Model	2	Cetaqua	M24	Yes	No	No	7	8	Yes
7-Data	Drought and water quality analysis	Dataset	2	Cetaqua	M36	No	No	No	-	-	No
8-Mod	Urban drainage model in Barcelona	Model	2	Aquatec, BCASA	M24	Yes	Partially (guidelines)	No	7	8	Yes



Code	Result	Туре	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCC UE	To be protected?
9-Data	Urban drainage simulations in Barcelona	Dataset	2	Aquatec, BCASA	M36	No	Yes	No	-	-	No
10-Mod	Marine model for quality prediction in Barcelona	Model	2	Aquatec	M24	Yes	No	No	7	8	Yes
11-Data	Assessment of marine model impacts	Dataset	2	Aquatec	M36	No	Yes	No	-	-	No
12-Met	Bursting pipes in Barcelona	Methodology	2	Aquatec	M24	No	No	No	-	5-6	Yes
13-Data	Assessment of bursting pipes impacts in Barcelona	Dataset	2	Aquatec, AB	M36	No	No	No	-	-	No
14-Mod	Electric model in Barcelona	Model	2	IREC	M24	Yes	No	No	6	8	Yes
15-Data	Simulations of the electric model in Barcelona	Dataset	2	IREC, Endesa	M36	No	No	No	-	-	No
16-Mod	Integrated flooding traffic model	Model	2	Barcelona CC	M24	Yes	No	No	4	6	Yes
17-Data	Simulation of impacts on the traffic model	Dataset	2	Barcelona CC	M36	No	No	No	-	-	No



Code	Result	Туре	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCC UE	To be protected?
18-Mod	Urban drainage model in Lisbon	Model	2	Hidra and CML	M24	Yes	Yes	No	7	8	Yes
19-Data	Urban drainage simulations in Lisbon	Dataset	2	Hidra and CML	M36	No	No	No	-	-	No
20-Mod	Energy distribution model in Lisbon	Model	2	EDP	M24	Yes	No	No	6	8	Yes
21-Data	Simulations of the energy distribution model in Lisbon	Dataset	2	EDP	M36	No	No	No	-	-	No
22-Tool	Integrated tool linking meteorological platform and traffic system	Tool	2	CML	M36	Yes	Partially (methodology)	No	5	7	Yes
23-Tool	Integrated tool linking meteorological platform and waste system	Tool	2	CML	M36	Yes	No	No	5	7	Yes
24-Mod	Urban drainage model in Bristol	Model	2	ВСС	M24	Yes	No	No	7	8	Yes
25-Data	Urban drainage simulations in Bristol	Dataset	2	ВСС	M36	No	No	No	-	-	No



Code	Result	Туре	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCC UE	To be protected?
26-Mod	Tidal and Fluvial Flooding model in Bristol	Model	2	ВСС	M24	Yes	No	No	6	8	Yes
27-Data	Tidal and Fluvial Flooding simulations in Bristol	Dataset	2	ВСС	M36	No	No	No	-	1	No
28-Mod	Integrated flooding - traffic model in Bristol	Model	2	Uni Exeter	M24	Yes	Partially (guidelines)	No	5	7	Yes
29-Data	Integrated flooding – traffic simulations in Bristol	Dataset	2	Uni Exeter	M36	No	Yes	No	-	-	No
30-Mod	Separate surface water model	Model	2	Wessex Water	M24	Yes	No	No	7	8	Yes
31-Met	Impact quantification indices in the electrical network	Methodology	3	IREC	M18	Yes	No	Yes	4	6	Yes
32-Data	Impact assessment in the energy sector	Dataset	3	IREC	M36	No	No	No	-	-	No
33-Met	Self-healing methods for the electrical network	Methodology	3	IREC	M36	No	No	Yes	-	7	Yes



Code	Result	Туре	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCC UE	To be protected?
34-Met	Clusterization method for the electrical network	Methodology	3	IREC	M36	No	No	Yes	-	7	Yes
35-Tool	Flood direct damages tool-1	Tool	3	Cetaqua, Aquatec	M18	Yes	No	Yes	6	8	Yes
36-Tool	Flood direct damages tool-2	Tool	3	Exeter	M18	Yes	Yes	No	7	9	Yes
37-Data	Flood direct damage assessments	Dataset	3	Exeter, Cetaqua, Aquatec	M36	Yes	Yes	No	-	-	No
38-Met	Flood indirect damage methodology	Methodology	3	Cetaqua	M18	Yes	Yes	Yes	4	6	No
39-Data	Flood indirect damage assessments	Dataset	3	Cetaqua	M36	No	No	No	-	-	No
40-Mod	CSO impact assessment model	Model	3	Aquatec	M18	Yes	Partially (methodology)	Yes	4	6	Yes
41-Data	Assessment of CSO impacts	Dataset	3	Aquatec	M36	No	Yes	No	-	-	No
42-Met	Transport indirect impact methodology	Methodology	3	Exeter	18	Yes	Yes	Yes	3	5	No



Code	Result	Туре	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCC UE	To be protected?
43-Data	Assessment of transport indirect damages	Dataset	3	Cetaqua, Exeter	36	No	Yes	No	-	-	No
44-Pub	Assessment of city resilience in Barcelona	Publication	4	Aquatec	18	No	Yes	No	-	1	No
45-Pub	Assessment of city resilience in Bristol	Publication	4	Urban- DNA	18	No	No	No	-	-	No
46-Pub	Assessment of city resilience in Lisbon	Publication	4	Hidra	18	No	Yes	No	-	-	No
47-Soft	New functionalities of Hazur "Adaptation Strategies" module in Hazur	Software	4	Opticits, Aquatec, Cetaqua	30	Yes	No	Yes	4	8	Yes
48-Soft	New functionality of HAZUR"Visualisation of Climate Change Scenarios module in Hazur"	Software	4	Opticits, Aquatec, FIC	30	Yes	No	Yes	4	8	Yes
49-Soft	Hazur Assessment Module	Software	4	Opticits	48	Yes	Yes	Yes	7	9	Yes
50-Soft	Hazur Manager Module	Software	4	Opticits	48	Yes	Yes	Yes	7	9	Yes



Code	Result	Туре	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCC UE	To be protected?
51-Tool	Tool and database for the selection of adaptation strategies	Tool and dataset	5	Cetaqua	18	No	Yes	No	-	-	No
52-Met	Methodology for the selection of resilience strategies	Methodology	5	Cetaqua	36	Yes	Yes	No	4	6	No
53-Met	Framework for cities resilience diagnosis	Methodology	6	LNEC, UN- Habitat	30	Yes	Yes	No	4	6	No
54-Met	Framework for the Resilience Action Plan	Methodology	6	LNEC	40	No	Yes	No	-	6	No
55-Tool	RESCCUE Assessment Framework tool for application	Tool	6	LNEC	30	Yes	Yes	No	-	6	No
56-Pub	Resilience Action Plan of Barcelona	Publication	6	Barcelona CC, LNEC, UNHAB	30	No	Yes	No	-	-	No
57-Pub	Resilience Action Plan of Bristol	Publication	6	Bristol CC, LNEC, UNHAB	30	No	Yes	No	-	-	No
58-Pub	Resilience Action Plan of Lisbon	Publication	6	Lisbon CC, LNEC, UNHAB	30	No	Yes	No	-	-	No



# 4 Communication and dissemination

# 4.1 Introduction. A Shared Challenge: communication and dissemination

'Communication' and 'dissemination' are two crucial concepts when referring to EU-funded projects since it represents the **information and knowledge flow**, one of the main objectives of any European public initiative. RESCCUE, a project aimed to build more resilient cities to climate change, makes a special effort in communicating its vision and disseminating its main results as it helps: i) to raise the awareness of taking the necessary measures to protect our cities and their inhabitants ii) to maximize the impact of the project and iii) to open up new opportunities for collaboration with related projects or relevant actors involved. In short, communication and dissemination activities makes the project visible within different target groups. For this reason, this is a task not only involving Work Package 7 (hereinafter WP7) Dissemination and Exploitation, but a challenge for the whole RESCCUE consortium.

It must be noted that, as stated in the article 29 of the Grant Agreement (hereinafter GA) of RESCCUE project (GA nº 700174), "unless it goes against their legitimate interests, each project beneficiary must — as soon as possible— disseminate its results by disclosing them to the public by appropriate means". The following table shows the commitment of each project partner in WP7 expressed in person-moth (hereinafter PM) units:

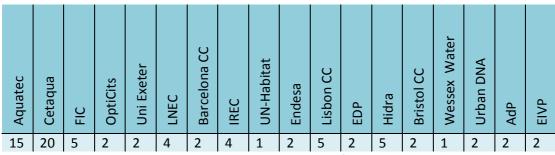


Table 2 PM in WP7 per beneficiary

As the chart above demonstrates, Cetaqua, the leader of the whole WP7, has the largest number of PM (20), therefore assumes the responsibility of coordinating all the RESCCUE activities related with communication, dissemination and exploitation. Cetaqua is also leading the first one of two the tasks of WP7, entitled 7.1 Dissemination and communication. Another task 7.2 Definition and elaboration of the Exploitation Plan and Business Plan is led by project coordinators Aquatec-SUEZ Advanced Solutions, the second largest contributor in the WP7 with 15 PM. Following, other project partners with a high level of commitment to communication, dissemination and exploitation activities are presented: FIC, LNEC, IREC, Lisbon CC and Hidra, as they have 5 or 4 PM allocated. They are expected to make significant contributions in WP7, always with the support needed from Cetaqua. Finally, partners with 2



or 1 PM allocated basically are asked to participate in the website activities by providing blog entries and news and to disseminate project results when possible.

# 4.2 Communication and Dissemination plan

The RESCCUE Communication and Dissemination Plan (hereinafter C&D plan) is the main document outlining project communication and dissemination issues. The main goal of this document is to determine the overall RESCCUE communication and dissemination strategy and to describe its implementation through the lifetime of the project. This C&D Plan is a flexible document assuming that the main aim of communication is to respond to the real-time needs. For this reason, this document will be regularly reviewed and updated as needed, as long as the whole consortium validates the modifications proposed. This document represent an updated version of C&D Plan, submitted on M15. The following official update of D7.7 is scheduled for M48.

Regarding the structure of this document, its main body is the description of RESCCUE communication and dissemination strategy, followed by a brief chapter on potential risks and barriers to successful communication and dissemination.

# 4.3 Communication and dissemination strategy

### 4.3.1 Framework and terms definition

In order to ensure significant and lasting impact of the RESCCUE project, an **integrated** (combining separate elements to provide a harmonious interrelated whole) and **multi-channel** (based on implementation of a single message across multiple channels or platforms) **communication and dissemination strategy** will be implemented. The key elements of this strategy are described in the following chapters.

### Communications vs. dissemination

Given the nature of European projects, it is imperative to ensure that here dissemination and communication go hand-in-hand. Nevertheless, the difference between these two terms sometimes is not entirely clear. Based on the definitions provided by EC, in the RESCCUE framework communication is understood as a tool for **introducing to the general public the most crucial concepts** the RESCCUE project is built under, such as urban resilience, globalization and climate change. In other words, the driving purpose of all communication activities described in this C&D Plan is to **raise awareness** and to **highlight the need for initiatives such as RESCCUE**. Dissemination instead, will be focused on the disclosure of knowledge, such as **achievements and results of the project**, trying to ensure its greatest possible resonance.

Global vs. local



In general terms, RESCCUE aims to build safer cities to live in and this is the core essence of the project. The **global concept of a smart, citizens-friendly and resilient city** will cover all the communication activities. Besides that, specific communication and dissemination activities will be focused on a local level in three research sites – Barcelona, Bristol and Lisbon – in order to **make the project more tangible** by presenting its **real benefits for each case study.** This kind of activities are expected to help in engaging local communities, potential stakeholders and key decision makers.

### On-line vs. off-line

RESCCUE seeks to be a **far-reaching project**, it is for this reason why whenever possible it will use online platforms for its communication and dissemination activities. The project website (*see* 4.3.5.1.2.1 Online communication activities) will periodically publish all the information related to the day-to-day matters and significant project outcomes. Additionally, **social media will be used as an impact multiplier**. However, there are some communication and dissemination activities, such as events, and materials, such as papers or posters, which by their nature are off-line. In the case of events, a brief video or at least a photo gallery will be uploaded together with the summary text in order to relate the experience in a more direct way. Additionally, the final conference of the project will possibly be livestreamed. Regarding the promotional materials, despite of printed copies, digital versions will be uploaded on the RESCCUE website in order to expand their accessibility.

## 4.3.2 Overall goal and specific objectives

Objectives are one of the fundamental building blocks of any strategic plan. Having clear aims helps to achieve coherence in activities and maximise the impact. The driving purpose of RESCCUE communication and dissemination strategy is to raise awareness on climate change and urban resilience by communicating the RESCCUE concept and disseminating project results.

Apart from that, the following specific objectives will be pursued:

- To allow both general and specialised public to access information about the project progress and its outcomes.
- To ensure a successful run-time and dissemination of project achievements and results to all relevant stakeholders.
- To foster contact between researchers, potential end-user of the RESCCUE tool and decision makers.

These objectives will be achieved by designing and implementing communication and dissemination activities (see 3.3.6 Implementation of communication and dissemination strategy).

# 4.3.3 Messages to be delivered



RESCCUE, as the majority of similar research and innovation projects, will obtain significant project outputs only in the latest stage of the project lifetime. In response to that, project communication and dissemination strategy is composed of **two phases**: the initial one, focused of **conceptual communication** and second one aimed to **disseminate project main results**. Each phase is represented by one or several key messages to de delivered. Both phases of RESCCUE communication and dissemination strategy are described below.

Duration	Phase	Description	Message to be delivered
[M1-M25]	PHASE I: Development of social engagement through awareness raising and introduction of the RESCCUE concept.	Given the fact that the concept of urban resilience is relatively new, the first task before communicating the RESCCUE project per se will consist in presenting the main ideas of urban resilience and its benefits to the society. In other words, when possible, the global context will be provided in order to explain the driving purpose of the RESCCUE project. In a reference to concrete project information, since during the first 24 months no significant results will be obtained, the communication will be focused on generic information about the project: its main goals, methodology, consortium, etc.	Urban resilience focuses on how to build cities able to manage different types of crisis.  The RESCCUE project aims to help urban areas around the world to become more resilient to climate change.
[M26-M48]	PHASE II: Dissemination of the RESCCUE results and potential impact.	As the RESCCUE project will start to achieve first key results from the month 24, the second phase of RESCCUE communication and dissemination strategy will be focused on dissemination of concrete project outputs placing emphasis on its potential impact. This phase will be developed in three principal waves in months 26, 36 and 48.	To be defined depending on the outputs obtained in each of 5 key results identified (see Figure 1). For example, the message regarding the results arising from the WP1 will be defined approximately on the M26 when all the WP1 outputs were delivered.

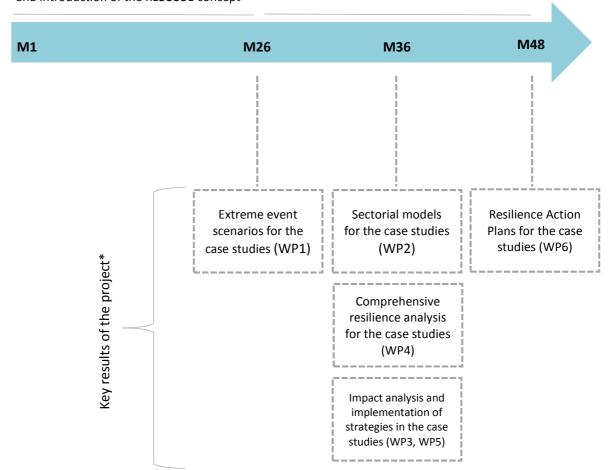
Table 3 Phases of communication and dissemination strategy and the messages to be delivered



The graphic below provides a visual explanation of both phases of RESCCUE communication and dissemination strategy.

**PHASE I**: Development of social engagement through awareness raising and introduction of the RESCCUE concept

**PHASE II**: Dissemination of the RESCCUE results and potential impact



<sup>\*</sup>The identification of these key results is based on their relevance to the global project outputs which also correlates with the essence of each of the technical Work Packages in which RESCCUE is structured.

Figure 1 Phases of communication and dissemination strategy

# 4.3.4 Target groups

In order to focus effectively RESCCUE communication and dissemination activities and to ensure the broadest possible impact of the project, different target groups were identified in the early stage of the project.





Figure 2 Target groups

**Stakeholders** play an important role in the project as they can contribute valuable experiences and also to make the project more visible. Different relevant stakeholders of each case study were identified in the early stage and the project and another ones joined RESCCUE later by participating in the various events carried out in the framework of the project. The following chart lists the RESCCUE stakeholders of each study case:

BARCELONA	LISBON	BRISTOL
<ul> <li>Aigües de Barcelona</li> <li>Transports Metropolitans de Barcelona</li> <li>Autoritat del Transport Metropolità</li> <li>Àrea Metropolitana de Barcelona</li> <li>Telefònica</li> </ul>	<ul> <li>IPMA - Instituto Português do Mar e da Atmosfera</li> <li>CARRIS - Transportes Públicos de Lisboa</li> <li>METRO Lisboa - Metropolitano de Lisboa</li> <li>REN - Redes Energéticas Nacionais</li> <li>IMT - Instituto da Mobilidade e dos Transportes</li> <li>APA - Agência Portuguesa Do Ambiente</li> <li>ANPC - Autoridade Nacional de Proteção Civil</li> <li>Direção-Geral do Património Cultural</li> <li>EPAL LVT - Empresa Portuguesa das Águas Livres</li> </ul>	<ul> <li>Bristol Water</li> <li>Environment Agency</li> <li>EE</li> <li>Bristol Waste</li> <li>Western Power</li> <li>Network Rail</li> <li>Wessex Water</li> <li>Highways England</li> <li>National Grid</li> <li>Openreach</li> <li>Department for Communities and LG</li> </ul>



- IST Instituto Superior Técnico
- FCUL Faculdade de Ciências de Lisboa
- Lisboa e-nova Agência
   Municipal de Energia Ambiente de Lisboa
- MEO
- Vodafone

Table 4 RESCCUE stakeholders in each study case

In terms of categories, these stakeholders represent transport, water, telecommunications, energy and waste sectors, public administrations, environmental agencies and research (see Figure 3).



Apart from these "local" stakeholders, other stakeholders are other scales, such as the Catalan Water Agency, the Catalan and Spanish Offices of Climate Change or the EUREAU (European federation of national water services), among others, have been also considered within the category of stakeholders.

**Dissemination multipliers** are other RESCCUE topic-related FP7 / H2020 projects (*see 3.3.5.3. Networking and joint dissemination initiatives*) as well as all the programmes, tools and platforms provided by European Commission in order to increase the reach and impact of the EU-funded projects.

# 4.3.5 Tools and channels for target engagement

The previous chapters of this document describe WHY do we need to communicate and disseminate the RESCCUE project (objectives), WHAT do we want to say about the project (messages) and TO WHOM we are going to deliver those messages (target groups). The only



aspect missing for this strategy to be complete is to explain HOW we are going to achieve our goals. The following part of C&D Plan describes different tools and channels identified as potential ones for target engagement.

### 4.3.5.1 Mass Communication

As stated previously, citizens are the principal beneficiaries of the RESCCUE project and this makes it crucial to explain them the essence of the project in an easy-to-understand language. In order to achieve it, much attention will be given to mass communication which refers to delivery of messages to general public by utilizing most popular on-line or off-line channels such as internet, press, radio, and television.

### 4.3.5.1.1 Communication materials

Every successful brand seeks to find the most suitable combination between two essential aspects: the tangible and the intangible. By the intangible we mean the values the brand transmits, the feelings it inspires, etc. In the RESCCUE case, as mentioned previously, **the core value is safer cities to live in**. Nevertheless, in order to communicate the values, it is essential **to give them a visible form**. This is why the creation of visual RESCCUE identity and other promotional materials is considered as a key task for successful project communication and dissemination.

### Logotype

The RESCCUE logotype was designed in the very early stage of the project. The logotype is the core element of the conceptual storyline of the RESCCUE brand. Taking into account the essence of the Project, it was decided to create a contemporary, urban inspired logotype. The RESCCUE logotype combines minimalism and cubism, it is simple but recognizable.



### **Visual Identity Manual**

In order to ensure the correct use of the logotype, a Visual Identity Manual was prepared and shared with all the project partners. This manual contains rules and guidelines for the correct use of RESCCUE design elements for project communication.





### **Templates**

Following the graphic line of the RESCCUE logotype, various project templates were designed for both internal (work templates) and external (representative) usages. All the templates include project logotype, the logotypes of all the project partners and the statement acknowledging the European Commission as a financing source of the project.



### Kit of graphic materials

In search of visual coherence in dissemination materials and events, a kit of graphic materials was developed in line with the brand identity during the second year of the project. The kit contains infographics, schemes, icons and timelines aimed to be used by all the project partners in different contexts: presentations, papers, social media, brochueres, etc.





### Merchandising

Additionally, in order to reinforce the visual identity of the RESCCUE project, some merchandising materials were designed. In concrete, a roll-up banner, a notebook and a folder were produced with the purpose of being used in the events carried out in the framework of the project.

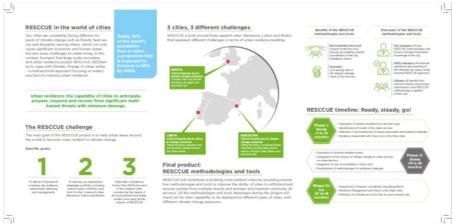


### Leaflet

Despite of the fact that RESCCUE communication and dissemination will mainly be focused on on-line activities, some printed promotional materials were also be produced. Precisely, two leaflets were planned with the aim of spreading the word about the project, especially during the evnts. The first leaflet is already designed and has been printed twice. It provides a brief overview of the RESCCUE context, its main objectives, explains the evolutions and expected results.







The second leaflet will review the evolution of the project and will incorporate the most significant mid-term results. It is expected to release the second RESCCUE brochure during the third year of the project.

### 4.3.5.1.2 Online and offline communication activities

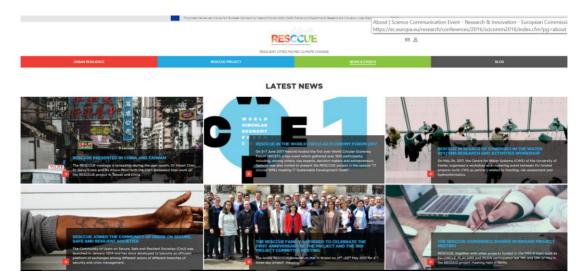
In the framework of RESCCUE, communication activities are understood as all those initiatives that are aimed to provide real-time information about the project. In other words, the objective of communication activities is to keep the audience updated, to sustain their interest in the project. This kind of activities can be both online and offline.

### Project website and blog

The RESCCUE website was launched by the end of the sixth month of the project, in November 2016. The RESCCUE website goes beyond a typical project website as it is aimed to be a 'reference portal of urban resilience'. Although in practice this is quite ambitious, some great work has already been done and a few more engagement activities are planned in order to attract new visitors to the website.



Regarding the visual aspect of the website, a card-based design has been chosen in order to create a reference to urban living. The homepage is 'built' of different blocks represented by impressive photographs. The idea was to create a sensation of city full of elements, colours and movement, to represent all kind of diversities that can be found in urban areas.



Talking about the content, the website is composed of **four main sections**: two of them contain a static content and the two other are dynamic ones, which means that are periodically updated. The following table provides the main characteristics of each of the website sections:

Section	Objective	Description	Type of content
Urban	To introduce the concept	A brief text provides a global vision	Static.
resilience	of urban resilience to the	on urbanisation, explains the	
	audience without a specific	challenges our cities are facing due	
	knowledge of it.	to the climate change and presents	
		the benefits of implementing urban resilience-focused measures.	
RESCCUE	To provide relevant	This section explains the context the	Static.
project	information about the	project, highlights its motivations,	
	project.	summarizes its main objectives,	
		presents the methodology and the	
		consortium and also includes the	
		"downloads platform" in order to	
		ensure the accessibility of project materials.	
News and	To present the most recent	Three sub-sections can be found	Dynamic,
events	achievements and	here: news, events and media.	with
	activities carried out in the		regular
	framework of the project.		updates



climate change and urban	and the most powerful tool for creating engagement with new	Dynamic, with regular updates every two weeks
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**Table 5 RESCCUE website structure** 

### Social media

Twitter is the principal social media channel for RESCCUE communication. Cetaqua will tweet all the information related from its corporate account and the rest of the project partners are also encouraged to do so, always using the official hashtags of the project #resccueEU and #resccue.

### **Newspapers**

One of the main objectives of RESCCUE in terms of communication is to ensure a high media coverage in all research sites. The project seeks to appear in different kind of media channels in order to extend the impact. Several press releases were prepared during the first year of the project and at present RESCCUE counts with over 110 appearances in media, at local, national and international levels.

### 4.3.5.2 Scientific dissemination

According to the definition given in the chapter 4.3.1.2 Terms definition: global vs. local communication and dissemination, the main goal of dissemination is to ensure the broadest possible impact of the RESCCUE project by transferring its achievements and results. When speaking about dissemination, it is usually referred, on the one hand, to the materials, such as scientific papers, posters, presentations and, on the other hand, to the activities, mainly events. In order to achieve an expected impact, all the RESCCUE partners during the lifetime of the project will disseminate principal outputs on these two routes mentioned above. To achieve an aligned, effective and efficient dissemination, some procedures and best practices guidelines have been established and are described subsequently.

### 4.3.5.2.1 Procedures, guiding principles and authorship issues

### Scientific papers and other dissemination materials

In RESCCUE, any project partner can and it is supposed to disseminate project achievements and results in scientific journals, as long as it complies with procedures established and meets requirements.



### **Procedures**

When deciding to submit any type of dissemination material, the essential first step is to communicate it to the whole consortium by **completing the Communication Sheet Form** and uploading it to the Basecamp, the project management platform, together with the abstract or paper. Once it is uploaded, project partners have three working days for providing comments and suggestions on it. If no comment is received, the publication is considered validated. In the event that any project partner does not agree to this publication, the author will contact the project partner to get to an agreement. In the case of there will be difficulties to agree, the author will contact the PMT in order to come up with a solution.

When the publication is accepted and published, the author is responsible for informing the consortium about it on Basecamp.

### Requirements

All publications must provide a shared vision of the RESCCUE project and contain the following acknowledgement:

This project has received funding from European Commission by means of Horizon 2020, the EU Framework Programme for Research and Innovation, under Grant Agreement no. 700174

### Authorship issues

These are the guiding principles regarding the authorship of RESCCUE dissemination materials:

- The first author should be that person who put most intellectual effort in writing the paper, is able to answer any scientific question about the paper and is also the one who will be responsible of its content and any possible mistake.
- The sequence of authors should be determined by the relative overall contributions to the publication.
- Proper acknowledgements should be included mentioning the persons or entities who contributed indirectly to the published study.

In the case of conflicts related to the authorship issues, the final decision will be taken by PMT members.



### **Events**

During the lifetime of the project each project partner will try to identify different events on both national and international levels where the RESCCUE project could be presented. In RESCCUE, any project partner can and is supposed to disseminate project achievements and results in the events, as long as it complies with procedures established and meets the following requirements.

### **Procedures**

When deciding to present the RESCCUE Project in any type of event, as a first step it is essential to communicate it to the whole consortium using the WP7 channel in Basecamp. After the assistance to the event, the **Event Report template should be completed** and uploaded to the Basecamp. The Event Report template summarizes the main characteristics of the event and helps to get an idea of possible impact the RESCCUE project could have obtained.

### Requirements

All presentations on the project must provide a shared vision of the RESCCUE project and contain the following acknowledgement:

This project has received funding from European Commission by means of Horizon 2020, the EU Framework Programme for Research and Innovation, under Grant Agreement no. 700174

In the case of conflicts related to the attendance to the events, the final decision will be taken by PMT members.

4.3.5.2.2 Planning of scientific dissemination for M24-M48

### Scientific publications

During the second year of the project, 3 scientific papers were submitted:

Title	Authors	Year	Journal	DOI
Mapping urban	Barry Evans, Albert S.	2018	Procedia	https://doi.org/10.1
infrastructure	Chen, Alison Prior,		Engineering	016/j.proeng.2018.0
interdependenc	Slobodan Djordjevic,			1.105
ies and fuzzy	Dragan A. Savic, David			
risks	Butler, Patrick Goodey,			
	John R. Stevens and			
	Graham Colclough			
Upper-Level	Dario Redolat, Robert	2018	Theoretical	http://dx.doi.org/10
Mediterranean	Monjo, Joan A. Lopez-		and Applied	.1007/s00704-018-
Oscillation	Bustins, Javier Martin-		Climatology	2424-6
index and	Vide			
seasonal				



variability of rainfall and temperature				
Resilience to Cope with	Marc Velasco, Beniamino Russo,	2018	Water	https://www.doi.or g/10.3390/w101013
Climate Change	Montserrat Martínez,			56
in Urban	Pere Malgrat, Robert			
Areas—A	Monjo, Slobodan			
Multisectorial	Djordjevic, Ignasi			
Approach	Fontanals, Salvador Vela,			
Focusing on	Maria Adriana Cardoso,			
Water—The	Aira Buskute.			
RESCCUE				
Project.				

Table 6 Scientific papers submitted during the second year of the project

On the next project years, the project partners representing investigation are expected to submit an important amount of papers in order to disseminate the project outcomes. The table below provides an estimated planning of the scientific publications.

Theme/Topic	Approx submis- sion date	Involved project partners	Submission probability
Simulating flood impacts and cascading effects with fuzzy based approach	M24-30	UNEXE	Likely
Comparative study of Open Source data for damage impact assessment from flooding	M24-30	UNEXE, BCC	Likely
Near-real time flood impact assessment and forecasting	M24-30	UNEXE	Likely
Resilience of solid waste management against urban floods	M25	Cetaqua, Aquatec and Barcelona City Council	Very likely
Coupling detailed Flood impact analysis with HAZUR for citywide visualisation of cross sector resilience assessment	M31-43	UNEXE, OPTICITS, UrbanDNA, BCC	Likely
Assessing uncertainties in property databases for calculating flood impacts	M31-43	UNEXE	Likely
Combining analog and stochastic methods to obtain future scenarios of extreme subdaily precipitation for urban drainage planning. The paper will include expected changes in the IDF curves for the RESCCUE cities.	M36	FIC, Aquatec	Very likely
Self-predictability of climatic quasi- oscillations and comparison with	M39	FIC	Very likely



CMIP5 near-term climate prediction within the RESCCUE project.			
Climate change impacts on urban	M42	Aquatec,	Likely
drainage in Barcelona		Cetaqua,	
		Barcelona CC	
Seasonal predictability of climatic	After the	FIC	Very likely
quasi-oscillations and comparison with	lifetime of		
the NCEP Climate Forecast System	the		
Version 2 (CFSv2). This includes the	project		
seasonal forecast for the RESCCUE	(May –		
cities.	June		
	2020)		

Table 7 Upcoming scientific papers to be submitted by RESCCUE partners

#### **Events**

So far, the RESCCUE project has been presented in several European and international events with the aim of disseminating its approach, advances and expected results to interested audiences as well as presenting the main ideas of urban resilience and its benefits to society. For example, during its first years, RESCCUE was presented at the 2016 World Smart City Forum in Singapore, the 3rd European Climate Change Adaptation Conference (ECCA 2017) in Glasgow or the 2018 IWA World Congress in Tokyo, among others. The complete list of events in which RESCCUE has been presented can be found in Annex 1.

Furthermore, the project consortium will continue disseminating RESCCUE in different kind of topic-related events on an international, national and local scales. The following table presents some events of 2019 that may be of interest in dissemination of the project (it is worth noting though, that some of the RESCCUE results will be presented in many other events of special interested to the several RESCCUE partners):

Event	When	Month	Where	Web
European	28/05/2019	M37	Lisbon,	https://www.ecca2019.eu
Climate			Portugal	
Change				
Adaptation				
conference				
(ECCA)				
European	25/06/2019	M38	Bonn,	
Urban			Germany	
Resilience				
Forum				
Resilient Cities	26/06/2019	M38	Bonn,	https://resilientcities2019.i
			Germany	clei.org/

Table 8 Potential Events where the RESCCUE project could be presented



#### 4.3.5.2.3 Networking and joint dissemination initiatives

Another important aspect regarding the dissemination activities is networking with other projects. During the first year, RESCCUE had the possibility to collaborate with different FP7 and H2020 projects which work on the topics related to climate change and urban resilience. The chart below provides the complete list of those projects:

Projects				
EU-CIRCLE	PLACARD	HELIX		
PEARL	ESPRESSO	CASCEFF		
DAIAD	STORM	CIPRNET		
ANYWHERE	BEAWARE	FORTRESS		
I-REACT	BRIGAID	PREDICT		
RESIN	HERACLES	SNOWBALL		
EU-CIRCLE	RISES-AM	RESILENS		
CLISEL	IMPRESSIONS	PUCS		

**Table 9 Networking with other projects** 

During the second year of the project, RESCCUE leaded or participated in different joint dissemination initiatives in search of a greater impact at EU level. As requested by the EC, a lot of efforts have been put in establishing synergies between the several projects of the same DRS9 call, which are PLACARD, EU-CIRCLE, RESIN and BRIGAID. A few common initiatives, as for example participation in Common Dissemination Booster or co-organisation of European Climate Change Adaptation (ECAA) 2019 conference, have already occurred and for sure there will be a lot more in the near future.

#### **Common Dissemination Booster**

Common Dissemination Booster (CDB) is an initiative funded by the EC with the aim of promoting R&I projects results. In late 2017 the RESCCUE project took the initiative in creating a cluster of resilience-focused projects in order to apply for different CDB services. The projects that form part of the cluster are the following: BRIGAID, RESIN and EU-CIRCLE. All the applications were accepted and in early 2018 the cluster started working on the first service. In total, RESCCUE cluster will participate in 3 CDB services:

Service 1: Portfolio identification

Service 3: Portfolio dissemination plan development

Service 5: Dissemination campaign in practise

The service 5 is expected to finish in late 2018.

#### **ECCA 2019**

RESCCUE together with another two topic-related projects PLACARD and BINGO was announced as a co-organiser of the ECCA 2019 conference that will be held in May 2019 in



Lisbon, Portugal. Since then, RESCCUE is an active member of the event organisational committee, participating in both scientific content and communication related tasks. Coorganising such an important conference provides an extra visibility for the project, gives an opportunity to connect with EU-policy makers and another key actors and boosts the networking, information and knowledge sharing.

# 4.3.6 Implementation of communication and dissemination strategy

This chapter summarizes the implementation of RESCCUE communication and dissemination strategy and presents the way it will be monitored and evaluated.

4.3.6.1 General overview: schedule of communication and dissemination activities during the lifetime of the project

The following table provides the most important information regarding the implementation of all the communication and dissemination activities that will be carried out in the framework of the RESCCUE project.

	Action	Description	Objective	Scheduled delivery date	Delivered	Lead beneficiary
	Project branding:	The logotype is the image that will identify the project. Based on it, templates for documents, reports and presentations will be created.	To achieve fast identification of the project through visual elements.	M3	M1	Cetaqua
	Leaflet	A printed document that will overview project objectives and actions.	To introduce the project and bring it closer to its audience.	n*	M6	Cetaqua
-	Website	A public image of the project and the meeting place for the participants.		M6	M6	Cetaqua
	BLOG	To provide an experience platform for project partners, PAB members, key stakeholders and	reference portal of urban resilience.	n	M6	All project partners

Action	Description	Objective	Scheduled delivery date	Delivered	Lead beneficiary
	another actors involved.				
Digital Press Room	Website section aimed to help the audience get deeper into the understanding of the project and to raise their awareness.		n	M6	All project partners
User Workspace for project members	A platform aimed to foster interactions among the partners, collect documentation, agreements, etc.		n	M2	Cetaqua and Aquatec
Gamification activities	An initiative aimed to help in the replicability of the general framework for resilience enhancement by training professionals and educating citizens.		n	in progress	Cetaqua
Social media	The main objective of social media is to attract traffic to the website and to favour dialogue with the parties concerned. Twitter will be the most used channel and the use of other social networks will be evaluated.		n	M1	Cetaqua with the support of all project partners
Video	An audiovisual communication tool that helps to make more effective the message meant to reach the target audience.	To promote and disseminate the project results in each case study	M48		Cetaqua



Action	Description	Objective	Scheduled delivery date	Delivered	Lead beneficiary
Presentation event with stakeholders	An event that will be organized on the first year of the project where important local stakeholders will be invited.	To present the objectives and expected results, to bring stakeholders together and to provide them with a common platform to exchange knowledge.	First year of the project	M6 Barcelona; M12 Lisbon; M18 Madrid	Cetaqua and Aquatec
Local workshops	During the last months of the project, one workshop will be held in each case study city.	To present the final results obtained during the project.	M30; M36; M42		Cetaqua
Final conference	The final conference will be held in Barcelona, in the Hospital de Sant Pau.	To exchange information and ideas with other case studies, to cross-benefit from one another, and to share methodologie s, best practices and success stories.	M48		UN- Habitat, Cetaqua and Aquatec
Publications	General media	Media channels aimed to inform a broad audience.	M1-M48	in progress	All project partners
	Scientific articles	Specific media channels focused on one concrete subject.			



Action	Description	Objective	Scheduled delivery date	Delivered	Lead beneficiary
Participation in different conferences, workshops, etc	All the PP will identify possible events to disseminate the RESCCUE project.	To promote the project at local, national and European levels.	M1-M48	in progress	All project partners
Short Film	A short video film on the RESCCUE project will be produced.	To raise public awareness actions among different target groups.	n	n	Lisbon City Council
3D learning materials	It will include graphic design materials as well as 3D images.	The main aim is to educate children in the Basic System of Education in the Municipality of Lisbon.	n	n	Lisbon City Council

Table 10 Schedule of communication and dissemination activities

#### 4.3.6.2 Monitoring and impact measurement

All the communication and dissemination activities will be monitored and measured according to the indicators set in order to provide an evaluation of its effectiveness and to examine the impact of the RESCCUE project. For this purpose, WP7 created a database for registering and monitoring of such activities. Each project partner is responsible for providing information about any communication or dissemination activity carried out by completing Communication Sheet and Event Report forms and it is the responsibility of WP7 to include that information into the database and to provide summaries and evaluation periodically during the PMT and PC Meetings.

Action	Output Indicators	Result Indicators	M15	M24	M48
Project branding :	Logotype and number of templates	1 logotype and 9 different templates	1 logotype and 9 different templates	A kit of extra graphic materials added to the collection	

<sup>\*</sup> not defined yet



	Action	Output	Result Indicators	M15	M24	M48
	Leaflet	Indicators  Number of leaflets designed and copies printed	2 leaflets, 600 copies each one	1 leaflet with 1200 copies printed	idem	
	Website	Average number of visits per month	300	350-400	idem	
	BLOG	Number of blog entries per month	2	2	idem	
	Digital Press Room	Average number of publications per month	3	3	idem	
	User Workspace for project members (Basecamp)	n	n	n	n	
	Gamification activities	to be defined	to be defined	n	n	
	Social media	Number of tweets and mentions per year	100	208	146	
	Video	number of views on Youtube	1500	n	n	
	Presentation event with takeholders	number of attendees and appearances in the media	50 attendees and 2 articles in general media	Barcelona: 53 attendees and 5 appearances in the media; Lisbon: 90 attendees and 5 appearances in the media	Madrid: 46 attendees and 2 appearances in media	
Lo	cal workshops	number of attendees and appearances in the media	50 attendees and 2 articles in general media	n	n	
Fin	al conference	number of attendees and appearances in the media	100 attendees and 5 articles in general media	n	n	



Action	Output Indicators	Result Indicators	M15	M24	M48
Articles publication	Number of articles published in general media	150	86	112	
	Number of submition of papers	Submission of 10 papers	0	2 (submitted and published)	
Participation in different conferences, workshops, etc	Number of presentation in events	15 local and 28 international conferences	6 local and 16 international conferences	11 local and 21 international conferences	
Short Film	To be defined				
3D learning materials	To be defined				

Table 11 Evaluation of communication and dissemination activities

# 4.4 Potential risks and barriers to successful communication and dissemination

The following chapter summarizes potential risks and barriers to be taken into the account regarding RESCCUE communication and dissemination. The content of the following table was previously included in the Contingency Plan of the deliverable D8.3.

Description of risk	Proposed risk-mitigation measures	Contingency Plan
Lack of visibility of project achievements	The effectiveness of dissemination activities will be constantly monitored and additional channels of dissemination will be used if necessary. Promotional materials will be developed to adequately address the target groups of RESCCUE.  A dissemination plan will be developed and the dissemination and communication activities will be monitored regularly in order to assess whether any changes need to be implemented.	If the consortium detects that the effectiveness of the dissemination activities is lower than expected, other dissemination actions will be emphasised (e.g., news in local media, engaging with other educational networks) to increase the project activities' visibility.
Low impact of the project on local communities	RESCCUE, being a project built around three research sites, has to be communicated not only globally, but also locally. It means that the citizens of Barcelona, Bristol and Lisbon have to be	In case of lack of local-level communication activities, WP7 will seek support from the City Councils in order to implement the most



Description of risk	Proposed risk-mitigation measures	Contingency Plan	
	informed about the project their city forms part as well as about its potential benefits.	appropriative communication activities for each city.	
Decreasing website visits	The number of visits to the RESCCUE website reflects the engagement with the project. In particular, the objective is to convert new visitors into returning ones and in this way to build a strong community interested in climate change and urban resilience topics.	new social media channels will be looked for in order to attract the visitors to the website. Also, it will be considered to publish different kind of	
The consortium does not contribute to the RESCCUE blog	The RESCCUE blog was born as a potential communication tool to raise awareness among climate change and urban resilience. The idea is to publish a new blog post twice a month, so this way each of the 18 project partners is asked to provide one blog article once in 9 months.	In case of low involvement in the RESCCUE blog activities, the format of the blog posts will be modified (more videos, interviews, videos, etc.), which means greater involvement of the communication team in order to minimize the effort required from the project partners.	

Table 12 Potential risks and barriers to successful communication and dissemination

As stated at the very beginning of the chapter 4, C&D Plan is the reference document regarding all the communication and dissemination issues of the RESCCUE project.

The most important part of this Plan is project communication and dissemination strategy aimed to be implemented during the lifetime of the project.

The strategy is built under four key questions: WHY, WHAT, TO WHOM and HOW. All these aspects are explained in an exhaustive manner in this deliverable.

Finally, the last chapter answers also to the question WHAT IF by providing a contingency plan of potential risks related to project communication and dissemination. As remarked previously, RESCCUE communication and dissemination strategy is flexible assuming that the main aim of communication is to respond to the real-time needs.



# 5 Exploitation Plan

According to the European Commission, exploitation can be defined as: the utilisation of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities.

It is worth noting that this D7.7 was done in parallel with D7.3 – Business Plan. This Business Plan presented in D7.3 will provide a description of the marketable outputs, a market study, and the business model for some of the marketable results of the project and the business projections.

Consequently, the purpose of the Exploitation Plan presented in this D7.7 is:

- to ensure the use of the results for scientific, societal or economic purposes; by recognising the exploitable results and their stakeholders.
- to concretise the value and impact of the R&I activity for societal challenges.

The plan must facilitate the common understanding of the aims of the exploitation activities, and assure that the dissemination and exploitation does not interfere with the IPR management, but serve it. In this sense, the exploitation of the results of RESCCUE project has been defined in coordination with an exhaustive protection of the **intellectual property** of both the background of project partners and the foreground results expected.

Moreover, the Exploitation Plan is designed to promote the adoption of the project solutions after its termination. In fact, it represents a key tool in order to take advantage in an effective and planned way of the dissemination channels to be used within the project, avoiding improvisation and over expenditures. Accordingly, it complements the business plans presented in D7.3 and presents a rough exploitation roadmap of the results (covering not only the length of the project but also the exploitation activities after the presentation of final results).

Following the recommendations of the European Commission, an effective Exploitation Plan must reflect the following issues:

- Different types of exploitable results (knowledge, methods, agreements, networks, technologies) are clearly identified and their direct and indirect value and impact for different stakeholders are considered
- The barriers and risks for exploitation (actual use of the results after project funding) are recognised and countered with appropriate measures
- Describes concrete measures to ensure that the results meet real needs, and will be taken up by potential users (e.g. engaging them in project)
- Describes the roles and responsibilities of partners in exploiting results or supporting results exploitation by other (intermediate or end) users



 Exploitation and IPR management must be reported quantitatively and qualitatively, including: patent applications, licenses, copyrighted/copyleft material, registered designs, etc.

In particular, in this deliverable these several issues are addressed in the following sections, where the several results will be presented, and then, sections 5.1, 5.2, 5.3 and 5.4 will be focusing on the Partner's obligations, the Intellectual property, the Finance requirements and the Exploitation strategies and commercial opportunities of the RESCCUE results.

# 5.1 Partner's obligations

Project partners can exploit results themselves, or facilitate exploitation by others (e.g. through making results available under open licenses).

In the Grant Agreement (GA) of RESCCUE project (GA nº 700174) article 28 deals with the topic of exploitation of results. This is an extract of the article:

#### ARTICLE 28 — EXPLOITATION OF RESULTS

28.1 Obligation to exploit the results

Each beneficiary must — up to four years after the period set out in Article 3 — take measures aiming to ensure 'exploitation' of its results (either directly or indirectly, in particular through transfer or licensing; see Article 30) by:

- (a) using them in further research activities (outside the action);
- (b) developing, creating or marketing a product or process;
- (c) creating and providing a service, or
- (d) using them in standardisation activities.

This does not change the security obligations in Article 37, which still apply.

28.2 Results that could contribute to European or international standards — Information on EU funding

If results are incorporated in a standard, the beneficiary concerned must — unless the Agency requests or agrees otherwise or unless it is impossible — ask the standardisation body to include the following statement in (information related to) the standard: "Results incorporated in this standard received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 700174".

28.3 Consequences of non-compliance



If a beneficiary breaches any of its obligations under this Article, the grant may be reduced in accordance with Article 43. Such a breach may also lead to any of the other measures described in Chapter 6.

## 5.2 Intellectual property

As commented, Intellectual Property Rights (IPR) issues are a key topic in research projects like RESCCUE. According to the IP Guide in H2020 (European IRP Helpdesk, 2014) proper management and protection of knowledge and know-how of the project should be done in order to:

- ✓ Disclose knowledge and ideas safely
- ✓ Prove the ownership
- ✓ Profit from commercial exploitation
- ✓ Prevent or discourage its unauthorized use by others

According to the definition included in the Consortium Agreement (CA) of RESCCUE project, Intellectual Property Rights (IPR) involves: patents, patent applications and other statutory rights in inventions; copyrights (including without limitation copyrights in Software); registered design rights, applications for registered design rights, unregistered design rights and other statutory rights in designs; and other similar or equivalent forms of statutory protection, wherever in the world arising or available, but excluding rights in Confidential Information and/or trade secrets.

The Consortium Agreement is the contractual document of EU-funded projects that sets out the legal basis for the share of rights, obligations and responsibilities related to the implementation of the project among the beneficiaries themselves and it is signed before the signature of the Grant Agreement. Defining central management principles and guidelines for all partners, the CA is a powerful management tool and an essential cornerstone for the successful execution and exploitation of the project. It is the place to further define, specify and agree on relevant IP arrangements which have already been taken into consideration at the proposal stage. It is purely an internal agreement between project partners, the European Commission does not intervene in the negotiation of the CA nor does it check its content. Yet, all arrangements laid down in the CA including those related to IP must comply with the overall provisions provided in the GA.

Key topics included in IPR clauses of the Consortium Agreement include:

- Knowledge management
- Confidentiality: mechanisms for marking information as confidential, use of confidential information, penalties for a breach of confidentiality provisions, etc.
- Background: a list of background to be brought to the project (and/or exclusion of assets which will not be brought to the project)



- Ownership and transfer of ownership of results: management of the ownership of the results developed in the project, including possible joint ownership and transfer of ownership
- Protection of results: mechanisms; costs sharing; etc.
- Exploitation
- Dissemination
- Access rights: scope, conditions, time limits, etc.
- Settlement of disputes

Finally, proper IPR management does not stop with the official ending of the project contract. Quite the contrary, measures to ensure the exploitation of results must be performed up to four years after the project. Apart from this general requirement of participants to actively engage in the use of their results beyond the project actual lifetime, certain rights and obligations related to IPR remain in force, such as:

- Confidentiality obligations
- Provisions concerning the transfer of results
- Obligations to protect results capable of commercial exploitation
- Notification to the EC, when deciding to stop protection or not to seek extension
- Right of participants to request access rights

#### 4.3.1. Background and results in RESCCUE project

While the results (foreground) expected from RESCCUE project have been already identified in the previous section **¡Error! No se encuentra el origen de la referencia.** (Identification of key results of the project), the background was previously defined in the early stages of the project development, specifically during the elaboration of the Consortium Agreement. Consequently, the background provided by each partner was declared in the Attachment 1A of the Consortium Agreement signed in May 2016.

Background means any and all, data, information, know-how IPRs that is/are:

- (i) owned or Controlled by a Party prior to the Effective Date; or
- (ii) developed or acquired by a Party independently from the work in the Action even if in parallel with the performance of the Action, but solely to the extent that such data, information, know-how and/or IPRs are introduced into the Action by the owning Party

The following table summarizes the background declared by each partner. For more information please refer to the Consortium Agreement.



Partner	Background included	Implementation limitations	Exploitation limitations
Aquatec	-Model data and results from previous research projects	Just for use in the framework	Just for use in the
	-Flood depth damage curves from CORFU project	of RESCCUE project under	framework of RESCCUE
	-COWAMA software: early warning system for coastal water management	Aquatec's permission	project under Aquatec's
	-Early warning system software for flooding prevention based on radar rainfall data		permission
CETaqua	-Results from CORFU project: direct damage assessment methodology	Just for use in the framework	Just for use in the
	-Results from PEARL project: methodology to assess indirect damages caused by flooding	of RESCCUE project under	framework of RESCCUE
	events	Cetaqua's permission	project under Cetaqua's
	-Results from BINGO project: methodology to assess the indirect impacts of combined sewer overflows (CSOs)		permission
	-Results from Water Change project: methodology and tool to assess the impacts of climate change on water availability		
	-Results from PREPARED project: multicriteria method for adaptation measures assessment		
	and SUDS knowledge base		
	-Results from IMPREX project: simulation tools to aid in decision making of water operators		
	-Results from EUPORIAS project: methodology and prototype to integrate season climate		
	predictions in decision making (dam management, water demand management).		
FIC	-FICLIMA: statistical downscaling tool to produce future scenarios	Just for use in the framework	The exploitation of this
	-Weather forecasting systems for the short and medium range (up to 10 days) and for the long	of RESCCUE project	Background after the end
	term (up to 60 days).		of the project will be
			conditioned to the
			fulfilment of FIC's property
			rights.
Opticits	-Hazur Assessment software tool	Just for use in the framework	Access to HAZUR trademark
	-Hazur Manager Basic software tool	of RESCCUE project by project	and the products HAZUR
		partners	Assessment and HAZUR
			Manager are subject to
			legal restrictions or limits,
			including those imposed by
			the rights of third parties.



RESILIENCE TO COPE V UNIEXE	VITH CLIMATE CHANGE IN URBAN AREAS.  None	-	-
LNEC	None	-	-
Barcelona CC	-Resilience model based on governance measures, tools and mechanisms to build a resilience strategy for the city of Barcelona -Resilience Boards Working methodology -Resilience platform -Municipal database -Datasets already available in the platform - Situation Room Consultation Web service -Situation Room functional modules - Resilience and Climate Change Adaptation Plan and vulnerability assessment and mapping of Climate Change impacts -Sewerage Master Plan of Barcelona (2006)	They can be exclusively used in the framework of RESCCUE project under BARCELONA CC's permission, excluding uses that can entail economic benefits for other parties.	They can be exclusively used in the framework of RESCCUE project under BARCELONA CC's permission, excluding uses that can entail economic benefits for other parties.
IREC	None	-	-
UNHABITAT	None	-	-
Endesa	-Knowledge, information and IPRSs owned by Endesa Distribución or its affiliates in the field of demand side management on electrical distribution networks  - Data, guides and software applications related to the description, operation and maintenance of distribution networks  - Knowledge and data related to the customers which are either confidential or concern ENDESA strategy  -Internal procedures and technical guidelines of ENDESA DISTRIBUCIÓN or of its Affiliates  -Background technology in the field of smart metering and demand side management  -Background technology in the field of smart metering and demand side management Public Lighting, Energy Efficiency, Public Energy Asset Management and Secondary substation security  -Data, guides or software applications related to the description, design, normalization, planning, operation or maintenance  -Developments and algorithms, as well as technical designs, functional design, information architecture and graphic design for the service layer made on the system EMS, EMMS Platforms	They can be exclusively used in the framework of RESCCUE project under Endesa's permission.	They can be exclusively used in the framework of RESCCUE project under Endesa's permission.



RESILIENCE TO COPE W	ITH CLIMATE CHANGE IN URBAN AREAS.		
	-Hardware and software element that responds to web and mobile applications with		
	customer interaction and the databases of historical information, information of real-time		
	data and system configuration included in the Multiservice Platform.		
CML	- Municipal database	Just for use in the framework	Just for use in the
	- Resilience and Climate Change Adaptation Plan "Estratégia Municipal de Adaptação às Alterações	of RESCCUE project under	framework of RESCCUE
	Climática"	CML permission	project under CML
	- Master Plan of Lisboa (2012)		permission
	- U-SCORE project report		
	- Lisbon's Resilience Action Plan Report		
EDP	None	-	-
Hidra	None	-	-
Bristol CC	None	-	-
SASUK	None	-	-
UrbanDNA	None	-	-
AdP	-Software platform for collection of on-line data from flow meters and rain meters of Lisbon	The access to the on-line data	The access to the on-line
	case study	of flow and rain meters of	data of flow and rain
	- Software platform Aquasafe for collection of on-line data from flow meters and rain meters,	Lisbon case study from Águas	meters of Lisbon case study
	and weather, sewage and Tagus estuary model integration of Lisbon case study	de Portugal and third party	from Águas de Portugal and
	- Data from flow and rain meters of Lisbon case study	EPAL is restricted to the	third party EPAL is
	·	project Resccue period	restricted to the project
			Resccue period
EIVP	None	-	-



#### 4.3.2. IPR agreement

As commented, the IPR Agreement has been established through the signature of the Consortium Agreement. The following is thus an extract of the CA clauses dealing with IPR issues.

#### "Section 8: Results

#### 8.1. Ownership of Results

Results shall be owned by the Party that generates such Results.

#### 8.2. Joint ownership

Resulting from Article 26.2 of the Grant Agreement, two or more Parties shall own Results, if they have jointly generated them, in proportion to their intellectual and material participation.

In the case it is not possible to establish the respective contribution of each Party or separate them for the purpose of applying for, obtaining or maintaining their protection, the ownership will be shared equally.

The other provisions of Article 26.2 of the Grant Agreement shall not apply. Instead, this Section 8.2 shall apply. However, the joint owners shall nevertheless be at liberty to agree in writing something different to this Section 8.2, so long as such different agreement does not adversely affect the Access Rights or other rights of the other Parties provided under the GA or this CA. Unless otherwise agreed by the joint owners, each joint owner shall have an equal, undivided interest in and to a joint Result as well as in and to resulting Intellectual Property Rights in all countries.

Unless otherwise agreed by the joint owners, each of the joint owners and their Affiliated Entities shall be entitled to exploit the jointly owned Result as they see fit, and shall be entitled to grant non-exclusive licences, without obtaining any consent from, paying compensation to, or otherwise accounting to any other joint owner(s).

Each joint owner of Intellectual Property Rights protecting such jointly owned Result shall have the right to bring an action for infringement of any such jointly owned Intellectual Property Rights only with the consent of the other joint owner(s). Such consent may only be withheld by another joint owner who demonstrates that the proposed infringement action would be prejudicial to its commercial interests.

The joint owners shall agree on all protection measures and the division of related costs in advance of any such protection measures being undertaken by any of the joint owners.

#### 8.3. Transfer of Results

- 8.3.1 Each Party may transfer ownership of its own Results (including without limitation its share in Results that it owns jointly with another Party or Parties and all rights and obligations attached to such Results) to any of its Affiliated Entities without notification to any other Party.
- 8.3.2 Each Party may identify in Attachment 3 to this CA specific third party(ies) if it intends to transfer the ownership of any of its own Results. Each Party may transfer ownership of its own Results (including without limitation its share in Results that it owns jointly with another Party or



Parties and all rights and obligations attaching to it) to any third party(ies) it identified in Attachment 3 without notification to any other Party. The transferring Party shall, however, upon another Party's request, inform the requesting Party of such transfer. During the implementation of the Action, any Party may add any further third party to Attachment 3 by providing written notice to the Coordinator within a reasonable period prior to a transfer to such further third party becoming effective.

8.3.3 The Parties hereby agree that in the framework of a merger or an acquisition, which, for the sake of clarity, shall mean to include any assignment of ownership of any of the Parties' Results, no notification of intended transfer of ownership need be given, due to confidentiality obligations arising from national and/or community laws or regulations, for as long as such confidentiality obligations are in effect and/or for as long as such notice is prohibited under applicable EU and/or national laws on mergers and acquisitions.

8.3.4 Any transfer of ownership of Results made under this Section 8.3 shall be made subject to the Access Rights, the rights to obtain Access Rights and the right to Disseminate Results that are granted to the other Parties and their Affiliated Entities in the GA and/or this CA. Therefore, each transferor shall use reasonable efforts to ensure that such transfer does not prejudice such rights of the other Parties or their Affiliated Entities, and the transferor shall pass on its obligations regarding the transferred Results to the transferee, including the obligation to pass them on to any subsequent transferee. The obligations under this Section 8.3 apply for as long as other Parties have - or may request - Access Rights to Results, as provided in Section 9 of this CA.

Each Party hereby waives any right to prior notification and to object to any transfer that is made in compliance with this Section 8.3."

#### 4.3.3. IPR management

The management of IPR issues is crucial for a clear and profitable exploitation of the RESCCUE results. This is precisely why an IPR agreement was prepared, included and signed within the framework of the Consortium Agreement.

In the previous section, articles 8.1, 8.2 and 8.3 from the Consortium Agreement have been cited, as they establish the several possibilities that exist in terms of IPR. On the other side, Table 1 shows all the exploitable results from the RESCCUE project and in particular, the owners of each results are also shown.

As is can be seen on the table, often, the RESCCUE results are owned by a single partner but in many cases, there is joint ownership of results. In the first case, the issue is very simple as the generator of the results is the owner and therefore, no special additional steps must be taken.

However, when the ownership is shared due to the co-development of intellectual property, appropriate contractual arrangements must be made between the several parties in order to clearly define the ownership and protect the generated IP.

Therefore, Aquatec, as coordinator of the RESCCUE Project and in charge of managing the generated IP, using the information from Table 1, will provide support to all the partners that



are jointly generating IP in order to clarify these issues and when needed, support them in the preparation of the according arrangements to be done.

#### 4.3.4. Patents

Any patent resulting from RESCCUE project results has not been identified so far.

## 5.3 Finance requirements

One of the requests of the DRS9 call, was to strengthen complementarity with other EU funding mechanisms, and particularly with the European Structural and Investment Funds. This clearly shows the importance of analysing the several financing opportunities that can be used to increase the exploitation of the RESCCUE results.

In this section, the context of the financing framework for RESCCUE is presented, together with a description of the ESIF and EFSI funds, which are the main tools that can be used for this case.

### 5.3.1 Financing for CAA and DRR

The RESCCUE Project aims to assess urban resilience from a multisectorial approach, for both current and future climate change scenarios and including multiple hazards. Therefore, the project deals with two concepts that although have a lot of similarities, they are often dealt with in a completely isolated way. These two concepts are disaster risk reduction (DRR) and climate change adaptation (CCA). The first one focuses on current risks of all kinds, whereas the second puts the efforts in adapting the future risks which are related to climate. The several commonalities and differences can be seen in Figure 4.

Although their scopes are different, the priorities of the agendas of both DRR and CAA include reducing vulnerability and enhancing resilience, which means that it makes sense to simultaneously benefit from risk reduction and adaption measures<sup>2</sup>. As such, DRR must not only manage current climate variability, but it must also take account of future risks that are associated with climate change<sup>3</sup>.

<sup>&</sup>lt;sup>2</sup>Begum, R.A., Sarkar, S.K., Jaafar, A.H and Pereira J.J., 2014 Toward conceptual frameworks for linking disaster risk reduction and climate change adaptation, International Journal of Disaster Risk Reduction, Volume 10, 2014, Pages 362-373.

<sup>&</sup>lt;sup>3</sup> Mitchell, T. and Aalst, M., 2008 Convergence of Disaster Risk Reduction and Climate Change Adaptation. A review for DFID. London.



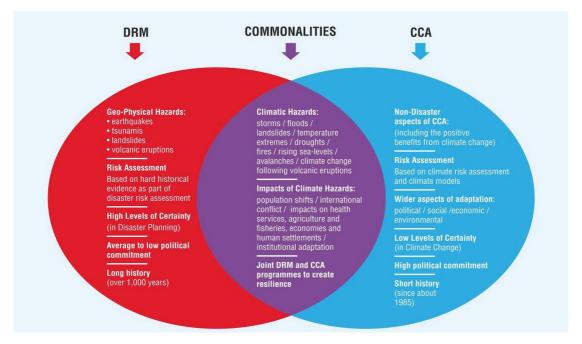


Figure 4 Differences and commonalities of Disaster Risk Reduction (or Management - DRM) and Climate Change Adaptation. Source: Ian Davis via PLACARD Project

Over the last few years, there have been several initiatives to bring together the communities of DRR and CCA, in order to seek for the evident synergies of implementing robust strategies now, which can also be valid in an uncertain future.

This is precisely the main goal of the PLACARD Project, another H2020 – DRS9 Project that aims to provide a common space where CCA and DRR communities can come together, share experiences and create opportunities for collaboration.

The programme will establish a comprehensive coordination and knowledge exchange platform for multi-stakeholder dialogue and consultation to address gaps and fragmentation challenges, and support the development and implementation of an evidence base for research and innovation policies (Figure 5).



Figure 5 Goals of the PLACARD Project, bridging the gap between the CAA and DRR communities.



One of the important topics that have been dealt very differently in both frameworks, are the financing issues. On one hand, CCA did not start to receive specific funds until very recently whereas sources of finance for reducing disaster risk have existed from long time ago, but they are varied and complex<sup>4</sup> (Figure 6). This, together with the profound economic and finance crisis in which we have been immersed the last few years, have worsened the situation and this is why very recently, new joint initiatives tackling both DRR and CCA are starting to appear.

The global economic and financial crisis has brought about a sharp drop of investment across Europe thus hampering essential investment in infrastructure and innovation. Currently, investment in Europe is 15% below pre-crisis levels<sup>5</sup>. Europe must remedy this investment gap to recover from the crisis and strengthen its global competitiveness. That is why collective and coordinated efforts at European level are needed to reverse this downward trend and put Europe on the path of economic recovery.

While adaptation to climate change will require broader activities than DRR, similar activities are often undertaken. Climate finance will not, however, go far enough in supporting non-climate related disaster risk, meaning funding mechanisms to address these will remain necessary. The overlaps in both goals and their concepts mean that ensuring efficiency and complementarity in financing is necessary despite the separate evolution of the climate change adaptation and DRR agendas.

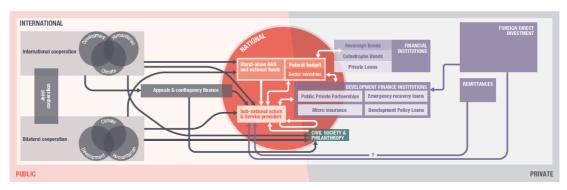


Figure 6 Scheme presenting the complexity of DRR funding schemes. Source: UNDP, ODI, 2015.

Finance for climate change adaptation is being directed to build resilience to extreme climate events. Between 2003 and 2014, \$2.1 billion of concessional finance flowed through dedicated climate change adaptation funds. Of this, only \$369 million has explicitly gone towards DRR activities, focused on early warning systems, coastal infrastructure, building resilience to climate related hazards, information systems and capacity building.

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<sup>&</sup>lt;sup>4</sup> Finance for reducing disaster risk: 10 things to know, 2015 Overseas Development Institute, Climate & Environment Programme, UNDP. UK.

<sup>&</sup>lt;sup>5</sup> EC 2015 Brochure on ESIF/EFSI complementarities: EGESIF 15-0032-00



Consequently, the DRR component of total adaptation finance is likely to be a much greater portion.

This climate finance for DRR includes funds channelled through financial mechanisms of the United Nations Framework Convention on Climate Change (UNFCCC). These include the Adaptation Fund, the Global Environment Facility administered Least Developed Countries Fund and the Special Climate Change Fund, as well as those outside of the UNFCCC process, such as the Pilot Programme for Climate Resilience, which is part of the World Bank's Climate Investment Funds.

The EU finances CCA in Europe through a wide range of instruments, aligned with the Europe 2020 Strategy towards smart, sustainable and inclusive growth<sup>6</sup>. The Multiannual Financial Framework 2014-2020 will ensure that at least 20% of the European budget is climate-related expenditure. Other funding opportunities can also be found via the work of the European Investment Bank (EIB) or the European Bank for Reconstruction and Development.

Climate change adaptation is integrated throughout EU sectorial policies, using, on one hand, the five European Structural and Investment Funds (ESI Funds or ESIF): the European Regional Development Fund (ERDF), European Social Fund (ESF), Cohesion Fund (CF), European Agricultural Fund for Rural Development (EAFRD), and European Maritime and Fisheries Fund (EMFF).

On the other hand, other instruments exist, such as Horizon 2020 that will promote research and development on climate change adaptation, the LIFE instrument which finances a wide range of projects related to environment and climate mitigation and adaptation, or the EU Solidarity Fund for natural disasters.

Finally, climate adaptation is integrated into funding and loans by the European Investment Bank and the European Bank for Reconstruction and Development, and is a major issue for insurance and other cross-cutting issues in the private sector.

Amongst all these different funding mechanisms, entities and different programmes, in Europe and with regards to the RESCCUE Project, it is worth noting the importance of EFSI and ESIF. In the next few years, these two funds will invest side-by-side in Member States and their regions. They are both set to play an essential role in the delivery of European policy objectives in the near future. While rationale, design, legislative framework and timeframe for implementation are different, there is considerable scope for maximising synergies and complementarities for additional investments.

<sup>&</sup>lt;sup>6</sup> EC Adaptation to Climate Change website: https://ec.europa.eu/clima/policies/adaptation/financing es



## 5.3.2 European Fund for Strategic Investments

The European Fund for Strategic Investments (EFSI) is an initiative to help overcome the current investment gap in the EU. Jointly launched by the EIB Group and the European Commission, it aims to mobilise private investment in projects which are strategically important for the EU. It is helping to finance infrastructure and innovation projects as well as small and medium-sized enterprises (SMEs) and mid-cap companies.

Mobilisation of private capital is a key feature of the EFSI. With EFSI support, the EIB Group will provide funding for economically viable projects, including projects with a higher risk profile than ordinary EIB activities. Emphasis will be put on key sectors identified under Art. 9 of the EFSI Regulation. Therefore, focus will among others be placed on: (i) transport, energy and the digital economy; (ii) environment and resource efficiency; (iii) human capital, culture and health; (iv) research, development and innovation; (v) support to SMEs and mid-caps. EFSI financial products will mainly be loans, guarantees and equity investments.

EFSI has no geographical or sectorial allocation or quotas; however, the Steering Board will establish indicative sectorial and geographical concentration limits. EFSI is demand driven and will provide support for projects across the EU, including cross-border projects. Projects will be considered and appraised based on individual merits.



Figure 7 Map of the EFSI funded projects since 2015 the launch of the programme (as of 15/06/17).

The investment plan is already showing results with various projects across sectors and countries. Over 250 investment projects have been financed over Europe (Figure 7), which imply an investment of 39 billion €, and have a related total investment related to EFSI of 209 billion € (Figure 8). More information and details of all this can be found the EIB website, on the EFSI section: <a href="http://www.eib.org/efsi/">http://www.eib.org/efsi/</a>



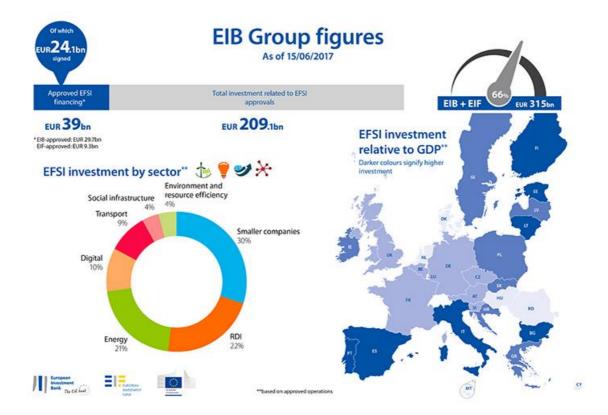


Figure 8 Summary of the EFSI investments since it was launched (as of 15/06/17).

## 5.3.3 European Structural and Investment Funds

As stated earlier, the European Structural and Investment Funds (ESIF) is a common designation for five European funds: the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and European Maritime and Fisheries Fund, which operate under a common framework.

ESIF aims to provide 450 billion € of funding over the 2014-2020 period, allocated to Member States and delivered through nationally co-financed multiannual programmes to develop and support actions related to the key Union priorities of smart, sustainable and inclusive growth in line with the objectives of each Fund.

National co-financing constitutes an integral and obligatory part of these programme resources and is covered by a common set of rules applicable to all ESI Funds and further defined under Fund-specific provisions. ESIF programmes are approved by the Commission and implemented by Member States and their regions under shared management. It is therefore the ultimate decision of managing authorities in Member States where and how funds are invested at project level within the framework of the relevant programme setting out the specific objectives, results to be achieved and types of action to deliver them.

ESIF programme support is mainly delivered either in the form of grants or through financial instruments in the form of loans, guarantees and equity investments.



ESIF programmes support focuses on 11 thematic objectives. From those, RESCCUE is specifically aligned with priorities 1 (strengthening research, technological development and innovation), 5 (Promoting climate change adaptation, risk prevention and management) and 11 (Enhancing institutional capacity of public authorities and stakeholders and efficient public administration) concerning the thematic objectives of the 2014-2020 European Structural and Investment Funds (ESIF) programme.

This will enable RESCCUE to support activation of downstream funding for solutions developed at the research sites, e.g. by analysing and monitoring opportunities arising from the EU structural funds programmes and Smart Specialisation Strategies 2014-2020 at the national and regional level. A lot of information about these funds can be found online in the EC website related to the ESIF<sup>7</sup>.

On the EC open data portal<sup>8</sup> there is a specific section about the ESIF, where all the statistics can be found. As an example, it can be found that Spain, through 64 national and regional programmes, benefits from ESIF funding of 37.4 billion € representing an average of 804 € per person over the period 2014-2020. A summary of the budget per theme and for each fund can be seen in Figure 9.

So far, 323 Spanish SMEs have been supported by the ESIF funding schemes. Information of this and all the national and regional programmes are available in this page: <a href="https://cohesiondata.ec.europa.eu/countries/ES">https://cohesiondata.ec.europa.eu/countries/ES</a>, which is the easiest way to navigate through these network of funds and easily identify ways to finance and upscale the results of a project such as RESCCUE.

<sup>&</sup>lt;sup>7</sup> https://ec.europa.eu/info/funding-tenders/european-structural-and-investment-funds

<sup>8</sup> https://cohesiondata.ec.europa.eu/



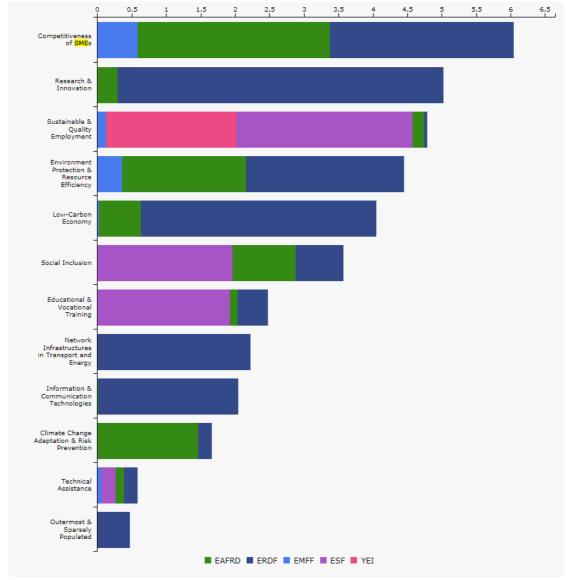


Figure 9 Summary of Spanish ESIF funds by Theme (in billion €)

# 5.3.4 Radar of financing opportunities

As it can be seen in sections 5.3.2 and 5.3.3, there is a wide range of funding mechanisms that exist in the framework of the EU to finance for DRM and CCA. However, the complexity of some of these mechanisms and the lack of awareness of local partners, often imply that these possibilities are not exploited.

In the case of RESCCUE consortium, in which there is a varied network of partners, from private companies to municipalities, SMEs, universities and research centres, the needs and opportunities for all of them are endless. Consequently, in order to properly identify and track the plausible opportunities, Cetaqua will prepare a "Radar of financing opportunities" in the Basecamp platform, so the whole consortium can be update in the upcoming calls and opportunities that may be used to finance the several RESCCUE exploitable results, or support the implementation of resilience strategies in the three research sites.



This radar will consist on a discussion threat in which information will be updated by Cetaqua on a regular basis, identifying the main topic-related calls that are open or are about to open. In order to do this, Cetaqua will count with the support of all the partners, that whenever come across a plausible opportunity, they will send it to Cetaqua so they can analyse it, filter it and in case it is needed, share it with the rest of the consortium.

As stated in a recent Workshop on synergies between H2020 and ESIF<sup>9</sup>, synergies must be found on a case-by-case basis, which means that each project has to tackle specifically for their case. This is even more important for the RESCCUE Project, as the wide range of partners and results opens the scope of possibilities. That is why this radar can be a very useful tool as a starting point to identify all the possibilities that funds such as EFSI and ESIF may offer.

# 5.4 Exploitation strategies and commercial opportunities

As presented in the EC factsheet "The Plan for the Exploitation and Dissemination of Results in Horizon 2020" <sup>10</sup>, a comprehensive exploitation plan must show the link between the proposed dissemination and exploitation measures and the expected impact of the project.

This is why an exploitation plan should contain exploitation and dissemination measures to be implemented both during and after the project. Exploitation and dissemination measures should address potential end-users and uses of the results that will be generated. Such measures could include for example research activities, commercial exploitation activities, standardisation, skills and educational training, and policy making.

As presented in Table 1, there is a wide variety of results that will be produced within the RESCCUE Project. As it can be seen, some of them could be commercialized but some other couldn't. However, both of them should be either disseminated or exploited.

Proper exploitation of results allows to profit from marketing and commercialisation of the intellectual assets acquired during the project (more details of some of the RESCCUE detailed business plans can be seen in D7.3). The successful implementation of exploitation measures must be based on a structured and targeted strategy already presented at the very beginning and further adjusted through the execution of your project<sup>11</sup>. However, given the fact that in many cases the majority of the expected results are available towards the end of the project

<sup>&</sup>lt;sup>9</sup> Workshop "Synergies between Horizon 2020 and the European Structural and Investment Funds: downstream combination for Climate action, Environment, Resource efficiency and Raw Materials", 18 January 2018, Brussels.

 $<sup>^{10}</sup>$  European IPR Helpdesk 2015 Fact Sheet: The Plan for the Exploitation and Dissemination of Results in Horizon 2020

<sup>&</sup>lt;sup>11</sup> European IPR Helpdesk - Your Guide to IP in Horizon 2020



and exploitation obligations remain in force up to four years after the project end, the concluding phase of the project is particularly important for the actual implementation of exploitation measures. This is why this D7.7 is an updated version of the Dissemination and Exploitation Plan, which will be further updated on M48.

The knowledge resulting from publicly funded research activities such as RESCCUE should turn into socio-economic benefits. This can be achieved in different ways, not only through direct commercialisation tools, but also via collaborative or contract research conducted in cooperation with or commissioned by the industry. In so doing, the dissemination and transfer of the generated knowledge to the market would therefore be ensured, with the objective of creating products and services to enhance social welfare. Commercialisation and transfer of knowledge are indeed two mainstream tools to turn science into business. However, it is worth noting that they can be complementary, as they often operate simultaneously. <sup>12</sup>

To promote commercialisation and transfer of knowledge, proper management of IPR must be done. In addition, other tools such as student and faculty mobility, the development of entrepreneurial culture and associated skills for students and research staff, and a strengthened interaction with the private sector, i.e. public-private partnerships (PPP), are also very important.

Additionally, the use of research results in further research activities of the same organisation or as background to be brought into a new collaborative research project, also contributes to advance and generate socio-economic benefits. Also, the research results help create new or contribute to on-going standardisation activities, and develop and create new services and/or products.

It is worth noting that in H2020 there is a general obligation to exploit the results of a project that says that each beneficiary must (up to four years after the project completion) take measures aiming to ensure exploitation of its results (either directly or indirectly), in particular through transfer or licensing by<sup>13</sup>:

- (a) using them in further research activities (outside the action);
- (b) developing, creating or marketing a product or process;
- (c) creating and providing a service, or
- (d) using them in standardisation activities.

Following, the several channels existing for the commercialization and knowledge transfer of research results are analysed.

<sup>&</sup>lt;sup>12</sup> European IPR Helpdesk 2015 Fact Sheet: Exploitation channels for public research results

<sup>&</sup>lt;sup>13</sup> European IPR Helpdesk 2015 Intellectual Property Management in H2020 projects - Introduction



#### 5.4.1 Commercialization channels

The importance of commercialising public research results can be justified by several reasons. Firstly, it would generate economic and social value and improve the competiveness of national industry. Secondly, the commercialisation of results could constitute an alternative income source to fund the R&D activity of the project beneficiaries. Thirdly, this would allow rooting an entrepreneurial culture within beneficiaries, as they could offer business building and entrepreneurship as part of their study programme, to raise grass-roots human capital with the aim of establishing and growing start-ups.

This means that even though commercial exploitation may primarily be relevant for companies (SMEs/industry), obtaining commercial benefits from research results becomes increasingly important for public research organisations as well. More details on the commercial exploitation of some of the RESCCUE results can be seen in D7.3 Business Plan.

Research results are rather special (as they generally are on an early stage, with a low TRL level and also might be very localized, providing only a partial solution). Therefore, the channels to commercialize them are a little bit different from other types of results. Commercial exploitation can be implemented by:

- Assignment
- Licensing
- Joint Venture
- Spin-off
- Consultancy

Through an **assignment**, the ownership of IP is transferred from one party to another. Consequently, the latter becomes the new owner of the IPR. The advantages of an assignment are the availability of immediate cash flow return to be invested in further R&D activities, as payments usually take the form of a lump sum payment. Besides, the developers would have no further responsibility for the management of the IP title, including the payment of fees or the monitoring of infringements.

A **license** agreement is a contract under which the holder of IP grants permission for the use of the intangible asset concerned to another person, within the limits set by the provisions of the contract. When it comes to negotiate license agreements, it is important to understand why the IP should be licensed and which licence is more suitable to the specific case. A licensing policy should be established in order to harmonise practices and ensure fairness in all deals. Licences for exploitation purposes should involve adequate financial compensation, as well as other types of benefits.

**Joint venture** is a type of collaborative commercialisation. It is a situation where scientists and private companies jointly commit resources and research efforts to projects; research activities are carried out jointly and may be co-funded. Joint ventures may range from short-term projects, to long-lasting strategic partnerships with multiple members and stakeholders. The parties to the joint venture share risks and contribute with their intellectual capital to technology research and development, production, marketing and further commercialisation. The most significant advantage can be considered as the ability of scientists to obtain



economic benefits from the commercialisation of their already existing IP, or the one resulting from the joint venture.

A **spin-off** refers to a separate company usually established to bring IP, in this case resulting from public funding, onto the market. It is deemed to be a valuable channel to transform the research results into products and services, as well as to license out technology. Most importantly, spin-offs are considered as a fundamental mediator between the research environment and industries as they are a powerful means of technology transfer between these two sectors. This is most of the time achieved through the acquisition of the spin-out company by larger companies.

**Consultancy** comprises two different types of activities: contract research and faculty consulting. The first channel consists of a research commissioned by a private company to pursue a solution to a problem of interest. It is distinct from most types of consulting as it involves the creation of new knowledge according to the specifications or goals of the client. Contract research has great significance for industry and is considered an important tool to foster PPP. Faculty consulting encompasses research or advisory services provided by researchers to industry clients. This is one of the most widespread activities in which industry and academics engage.

### 5.4.2 Knowledge transfer channels

Commercialisation and knowledge transfer tools often converge and operate in a complementary fashion. However, while commercialisation can be connected to the mere market exploitation of public research, knowledge transfer is more disposed to the flow of knowledge from research to industry, with all the benefits related to social-economic growth.

Although direct commercialization tools are deemed to be the most effective, knowledge spill-over can be achieved also by student and faculty mobility, academic consulting and research contracts. Student entrepreneurship is also gaining importance to promote the transfer of publicly funded knowledge. These knowledge transfer tools can be translated in public-private partnerships, thanks also to the increasing practice for industry to source external knowledge to widen their knowledge base.

Other knowledge transfer channels that are recognised as crucial in stimulating innovation can be publishing, conference and networking, standards and open data.

**Publication** is deemed to be the most suitable means of knowledge dissemination as it permits the fastest and open diffusion of research results. The protection granted by the IP system to an article or publication is copyright, which arises automatically when the researcher writes it. It is worth mentioning that copyright only protects expression of the words contained in the text and its originality, but not the idea underlying the research findings. Therefore, before publishing it should be carefully considered, to see whether the research results need to be protected by other IPR (e.g. patents, design, etc.), or the transmission of knowledge is carried through the open access model.

Alongside publications, **professional conferences**, informal relations, casual contact and conversations are among the channels ranked as most important by industry for the flow of



knowledge between private and public sectors. As with publications, attention to the information disclosed in networking should be paid, as this could obstruct further IP protection of the results generated.

A **standard** is a document, established by consensus and approved by a recognised body, which provides for common rules, guidelines or characteristics for activities or their results and having the purpose of achieving an optimum degree of order in a given context.

**Open data** is the idea that some data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control. Open data contributes to the spread and publication of research results data on the web. However, finding open data can be challenging since the metadata that accompany the datasets are often incomplete or even non-existent and so, the metadata definition is something that must be carefully addressed.

# 6 Dissemination and exploitation actions

Once the different results of the RESCCUE project have been identified in Table 1 and taking into account the dissemination and exploitation plan being defined, a set of datasheets have been developed for those results that the owners have decided to disseminate and/or exploit them.

As it can be seen in Table 1, there are several **methodologies**, **tools** and **software** that could be commercialized, but obviously, this depends on the owner and their interests regarding these results generated. In addition, most of these results that could be commercialized are already at an early stage of development and hence deciding now which is the best channel to commercialize them is probably not feasible.

Another big block of RESCCUE results are the datasets generated by the several methodologies, tools, software via setting-up models with the research site information. In these cases, commercialization is not an option so the way to exploit the results is via publishing them or spreading them in conferences, networking events and making them available with open data (i.e. in an open-access repository such as Zenodo). This is specially detailed in D8.2 Data Management Plan and its revisions.

Finally, the last big block of RESCCUE results are the publications (such as the Resilience Action Plans and some other critical deliverables of the project). In these cases, the exploitation channel is clear: the results must be published so they can reach a wider audience and the impacts of the project can be easily deployed to other cities. In order to this, the several specific strategies described in section 5.4 should be applied.

For 39 of the 58 results, several dissemination and/or exploitation actions have been defined.

This actions have been defined by each one of the results' owner(s), resulting in a datasheet for each one of the results including the following information:



- Result
- Type of result: dataset, methodology, model, software or publication
- Owner(s)
- WP
- CODE
- Action (in yellow dissemination actions, in green exploitation actions)
  - o Description
  - Target
  - o Planning
  - o Responsible

It is worth noting that this is just an initial plan established with the general exploitation tasks to be done in RESCCUE. Considering the vast amount of results to be exploited, more detailed exploitation paths will be described in future versions of this D7.7, working together with the several owners of the results.

Finally, it is important to consider that the RESCCUE results will have to be exploited until four years after the end of the project.

The different dissemination and exploitation datasheets have been classified per result and per WP as follows.



### WP1

Result	FIC climate st	atistical downscaling me	thod		Туре	Methodology		
Owner	FIC	WP	1		CODE	1-Met		
Action		Description	Target		Planning	Responsible		
Definition of a service/product		Service/product based methodology of statistical downscalin by FIC, which could be climate service to the se users, that would be data generated	-City managers -Utility managers		M36	FIC		
Guidelines		Guidelines "How to us scenarios for analysing related impacts in cities	City managers, Engineering companies		M33	FIC Aquatec Cetaqua		
Networking		Presentation of the met in EIT Climate-KIC netv Valencia and Malaga	City managers, Engineering companies		M24 and M29	FIC		
Networkir	ng	Presentation of the met in Copernicus - Berlin	hodology	Policy ma Engineeri companie	ng	M29	FIC	

Result	Seasonal-to-	-decada	I downscaled simulat	tions		Туре	Dataset	
Owner	FIC		WP	1		CODE	2-Data	
Action		Descr	iption		Target		Planning	Responsible
Talk		Bristol and Lisbon climate projections presented in Uhinak (Cross-Border Conference on Climate and Coastal Change) http://www.resccue.eu/news/bristol-and-lisbon-climate-projections-presented-uhinak-			City manage Engineering companies	rs,	M23	FIC
Talk		"Predictibility of teleconnection indexes and their applicability in seasonal and decadal prediction" presented in 11th International Conference of the Spanish Association of Climatology (AEC)		Engineering companies		M30	FIC	



Result	Extreme rainf	all de	velopment methodol	ogy		Туре	Methodology	
Owner	FIC, Aquatec		WP	1		CODE	3-Met	
Action		Desc	escription Targe		Target		Planning	Responsible
Guidelines		gene raint	Visual guidelines about generation and use of extreme rainfall scenarios (possibly jointly with the above Guidelines).  City manage Engineering companies		ng	M31	FIC Aquatec	
Paper		stoc futu daily drain inclu	re scenarios of extre precipitation for nage planning. The pa	methods to obtain arios of extreme sub-ipitation for urban anning. The paper will ected changes in the		_	M41	FIC Aquatec
Definition of a service/product		com deve simu extre sold	ice/product based bined meth eloped by FIC and Aquilating sub-daily eme events, which cas a climate service ral end users	d on a -City man thodology quatec for rainfall could be		ŭ	M36	FIC
Disseminat methodolo	odology interpretation and use of the		-City mana -Utility ma	· ·	M36	FIC		
implement	ssemination of the paper plementation of the ethodology			-Scientific technical communit		M42	FIC	

Result	Climatic chang	ge sce	narios of extreme ev	ents		Туре	Dataset	
Owner	FIC, Aquatec WP		WP	1		CODE	4-Data	
Action		Des	cription		Target		Planning	Responsible
Blog article		Blog article "Projections Of Extremes For Barcelona, Bristol And Lisbon: Are We Ready?" published in the RESCCUE website			General public		M27	FIC
Talk		"Near and long-term climate change in the RESCCUE project: Climate extreme scenarios from downscaled CMIP5 multi-model" presented in 11th International Conference of the Spanish Association of Climatology (AEC)		Engineering companies		M30	FIC	
Guidelines		Visual guidelines about generation and use of extreme		City mana	gers	M31	FIC Aquatec	



scenarios (possibly jointly with	Engineering	
the above Guidelines).	companies	

Result	Seasonal-to-d	ecada	l downscaled method	d		Туре	Methodology	
Owner	FIC		WP	1		CODE	5-Met	
Action		Description		Target		Planning	Responsible	
Paper		Osci varia	er-Level Medite Ilation index and s ability of rainfal perature		Engineerir companies	•	M11	FIC
Talk		"Predictability of teleconnection indexes and their applicability in seasonal and decadal prediction" presented in 11th International Conference of the Spanish Association of Climatology (AEC)		Engineering companies		M30	FIC	
Paper		Self-predictability of climatic quasi-oscillations and comparison with CMIP5 near-term climate prediction within the RESCCUE project.		Engineering companies		M38	FIC	
Paper		Seasonal predictability of climatic quasi-oscillations and comparison with the NCEP Climate Forecast System Version 2 (CFSv2). This includes the seasonal forecast for the RESCCUE cities.		City managers, Engineering companies		M49	FIC	
Definition of a service/product		Service/product based on a methodology of seasonal-to-decadal prediction developed by FIC, which could be sold as a climate service to the several end users, that would be using the data generated		-City managers -Utility managers		M36	FIC	
Disseminat methodolo	nination of the Guidelines for the development, interpretation and use of local climate scenarios		-City managers -Utility managers		M36	FIC		
Disseminat implement methodolo	ation of the	Paper (probably two papers)		-Scientific technical communit		M42	FIC	



#### WP2

Result	Urban drainag	ge mo	del in Barcelona		Туре	Model		
Owner	Aquatec, BCAS	SA	WP	P 2		CODE	8-Mod	
Action D		Desc	cription	Target			Planning Responsible	
Action  Guidelines		beha	lelines "How to analy: aviour of critical urbai ices under climate pre	า	City manag Utility man	~	M35	Aquatec Cetaqua BCASA IREC Barcelona CC Hidra Lisbon CC EDP Bristol CC University of Exeter Wessex Water

Result	Urban drainag	ge sim	ulations in Barcelona		Туре	Dataset		
Owner	Aquatec, BCAS	SA WP 2			CODE	9-Data		
Action		Desc	scription		Target		Planning	Responsible
Blog article		resil knov our ever	Blog article "Building city resilience through a detailed knowledge of the behaviour of our urban systems during crisis events" published in the RESCCUE website		General public		M19	Aquatec
Scientific paper		char drain subr pape	scientific paper on climate ange impacts on urban ainage in Barcelona will be bmitted. Integrated with the per describing the ethodology.		Scientific communit	у	M42	Aquatec

Result	Marine mode	l for q	uality prediction in B	Туре	Model			
Owner	Aquatec WP			2		CODE	10-Mod	
Action	Action D		escription		Target		Planning	Responsible
b		beha	delines "How to analyse the aviour of critical urban vices under climate pressures"		City managers Utility mangers		M35	Aquatec Cetaqua BCASA



	IREC Barcelona CC
	Hidra Lisbon CC EDP
	Bristol CC University of Exeter
	Wessex Water

Result	Assessment of	Assessment of marine model impacts				Туре	Dataset	
Owner	Aquatec WP 2		2	2 CODE		11-Data		
Action		Desc	cription		Target		Planning	Responsible
Scientific	fic paper A scientific paper on climate change impacts on marine environments.		Scientific communit	у	M42	Aquatec		

Result	Bursting pipes	s in Ba	ırcelona	Туре	Methodology			
Owner	Aquatec		WP 2		CODE	12-Met		
Action	Description		Target	Target Planning		Responsible		
Guideline	5	beha	delines "How to analys aviour of critical urbar ices under climate pre	n	City mana Utility man	-	M35	Aquatec Cetaqua BCASA IREC Barcelona CC Hidra Lisbon CC EDP Bristol CC University of Exeter Wessex Water

Result	Urban drainag	Urban drainage and flooding model				Туре	Model		
Owner	Hidra		WP 2			CODE	18-Mod		
Action Description		Target		Planning	Responsible				
					, i			посрополого	



Result	Integrated to system	ol linking meteorologica	Туре	Tool			
Owner	CML	WP	2		CODE	22-Tool	
Action		Description		Target		Planning	Responsible
Dissemina methodol		the methodology to rainfall data (inducin hazard maps and overtopping flooding maps) and data to exposure and vulne traffic infrastructure	Publication of a report describing the methodology to integrate rainfall data (inducing flooding hazard maps and coastal overtopping flooding hazard maps) and data to establish exposure and vulnerability of traffic infrastructures and inclusion in a Master Plan		City managers Society and citizens		CML RESCCUE Portuguese partners Lisbon Climate Change team
Presentati conference 2019)	-	Methodology and maconcerning the mobili model for Lisbon		General pu	ublic	M37	Hidra, CML and NEC

Result	Integrated floo	Integrated flooding – traffic model in Bristol				Туре	Model	
Owner	University of Exeter		WP 2 (		CODE	28-Mod		
Action		Description		Target		Planning	Responsible	
Guideline	5	of ar for t avai insig base tran	lelines for the develop n Open Source traffic he city of Bristol base lable data that can protect the into the impacts of ed events on the sportation network and ential implications on sices.	model d on ovide f flood nd its	City manag Utility man	•	M35	University of Exeter BCC

Result	Integrated flooding- traffic simulations in Bristol					Туре	Dataset	
Owner	University of Exeter	WP 2			CODE	29-Data		
Action	ion Description			Target		Planning	Responsible	
Data O Scientific	utputs and Results of simulations carried out			City mana Utility man	~	M41	University of Exeter, Cetaqua	



Result	Impact quant	ification indices in the elec	trical netv	Туре	Methodology		
Owner	IREC	WP	3 CODE		31-Met		
Action		Description		Target		Planning	Responsible
Definition service/pr		Service/product based quantification indices energy sector to quan impact of climate change system, which could be useful for the utility man the energy sector and services	in the tify the on their oe very pagers in	-Utility (energy se	managers ervice)	M36	IREC
Marketing dissemina campaign commerci product	tion to	Identification of ways/channels of advertise	the sing	-Utility (energy se	managers ervice)	M42	IREC

Result	Self-healing m	nethods for the electrical n	etwork		Туре	Methodology	
Owner	IREC	WP	3		CODE	33-Met	
Action	Action Description			Target		Planning	Responsible
	Definition / Detection of a service/product  Service or software tool to allow optimal network reconfiguration automatically minimizing power delivery losses.		guration	- Distribution network operators (Electrical sector)Transmission network operators (Electrical sector) - Energy retailers (Electrical sector)		M36	IREC
Definition exploitation innovation	n of an Decide how to exploit the innovation (i.e. technology		- Electric companies - SMEs or s - others	5	M40	IREC	
Marketing dissemina campaign commerci product	tion to	Creation of info documentation, identific the ways/channels advertising.	ormative ation of of	network (Electrical -Transmiss network (Electrical	sector). sion operators sector) retailers	M42	IREC



Result	Clusterization	method for the electrical i	network		Туре	Methodology	
Owner	IREC	WP	3	3		34-Met	
Action		<b>Description</b> Target			Planning	Responsible	
Definition service/pr	/ Detection a oduct	Service or software tool minimizing power deliver through the split of distribution grid into microgrids (using the genexisting on each zone).	ry losses of the small	- Distribution network operators (Electrical sector)Transmission network operators (Electrical sector) - Energy retailers (Electrical sector) - Flexibility agents (Electrical sector) - Market traders (Electrical sector)		M36	IREC
exploitation plan of inno		transfer, IP protection,	echnology - SMFs or		5	M40	IREC
Marketing dissemina campaign commerci product	tion to	and Creation of informative - Electric documentation, identification of companies to the ways/channels of - SMEs or s		S	M42	IREC	

Result	Flood direct d	amag	es tool-1			Туре	Tool	
Owner	Cetaqua, Aqua	atec	WP	3		CODE	35-Tool	
Action		Desc	cription		Target		Planning	Responsible
Definition service/pr	•	Service based on the flood direct damages tool (concerning properties and vehicles), that could be used by many different targets depending on the type of use done (city managers could use it to plan their investments while utility managers improve their operation)		-City managers -Utility managers -Insurance companies		M36	Aquatec	
	<i>'</i>	of	tion of a leaflet, ident the ways/channo noting.		-City mana		M42	Aquatec



	Engagement workshops demonstrating methodologies  Publication of paper describing methodologies employed for quantifying impacts	-Insurance companies		
Action	Guidelines "How to analyse the behaviour of critical urban services under climate pressures"	Engineering companies Insurance companies City managers	M35	University of Exeter Cetaqua Aquatec

Result	Flood direct d	amag	es tool-2	Туре	Tool			
Owner	University of Exeter		WP	3		CODE	36-Tool	
Action	Action Description			Target		Planning	Responsible	
Guidelines		GGuidelines "How to estimate direct, indirect and subsequent cascading impacts from climate driven hazards"		Guidelines "How to estimate direct, indirect and subsequent cascading impacts from climate driven hazards"		M35	University of Exeter Cetaqua Aquatec	
Conference Presentation		Presentation at the WSI conference in Wageningen on data quality assessment		Scientific communit	у	M30	University of Exeter	
Journal Publication		unce	ication about a ertainties present ir age assessment	ssessing Direct	Scientific communit	у	M33-M44	University of Exeter

Result	Flood direct d	Flood direct damage assessments					Dataset		
Owner	University Exeter, Ceta Aquatec	of qua,	WP	3		CODE	37-Data		
Action	Description			Target		Planning	Responsible		
Scientific	Scientific paper		Flooding hazard assessment for current and future scenarios for the case of Barcelona			makers/ nagers/ gers	M42	Exeter CETaqua Aquatec	
from climate drive		orts on the analysis of n climate driven event 3 case study areas		City mana Utility man Scientific communit	ngers	M29	Exeter Cetaqua Aquatec		



Result	Flood indirect	damage	methodology			Туре	Methodology	
Owner	Cetaqua	W	VP	3		CODE	38-Met	
Action	Action Description			Target		Planning	Responsible	
service/product		flood method useful f their	Service/product based on the flood indirect damage methodology, which is mainly useful for the city managers for their strategic planning of investments		-City managers		M36	Cetaqua
Dissemina methodol	tion of the ogy			-Scientific technical communit		M36	Cetaqua	

Result	Combined Sev	ver Overflows (CSO) imp	act assessm	ent model	Туре	Model		
Owner	Aquatec	WP 3 CODE 40-Mod						
Action		Description		Target		Planning	Responsible	
Definition of a service/product		Service/product base Integrated model drainage and hydrodynamics to est concentration of micr pollution (Escherichia receiving waters (sea: a distances offshore) duepisodes.  The definition product/service includand inclusion on the portfolio of products and	-City mana -Utility ma (sewers, W managers) -Receiving managers	nagers /WTP	M36	Aquatec		
Marketing dissemina campaign commerci product	tion to	Contact with department and management depart define the comme strategy	-City mana -Utility ma -Project stakeholde	nagers	M42	Aquatec		
assessmer	tion of the nt's results of cts in marine ies	Publication of a paper		-Scientific technical communit		M36	Aquatec	

Result	Assessment of CSO	impacts	Туре	Dataset	
Owner	Aquatec	WP	3	CODE	41-Data



Action	Description	Target	Planning	Responsible
Scientific paper	Paper on climate change effects on CSOs in the metropolitan area of Barcelona	Scientific community	M42	Aquatec

Result	Transport ind	lirect i	mpact methodology			Туре	Methodology	
Owner	Cetaqua, University of Exeter		WP	3		CODE	42-Met	
Action		Des	cription		Target		Planning	Responsible
Guidelines		Guidelines "How to estimate direct, indirect and subsequent cascading impacts from climate driven hazards"			Engineering companies Insurance companies City managers		M35	University of Exeter Cetaqua Aquatec
Conference Presentation		Present work on traffic impacts assessment in scenarios where data availability is limited			Scientific Communit City Mana Utility Mar	gers	M33-M44	University of Exeter BCC
Definition service/pr	on of a Methodology for the analysis and quantification of the impacts of -City managers		inagers g on	M48	University of Exeter			
Dissemina methodol			lication of a paper de methodology	escribing	-Scientific technical communit		M42	University of Exeter

Result	Assessment o	Assessment of transport indirect damages					Dataset	
Owner	Cetaqua, University of Exeter	viversity of WP 3				CODE	43-Data	
Action	n Description			Target		Planning	Responsible	
Scientific Reports  Reports on the analysis of impacts from climate driven events within the 3 case study areas		City manag Utility mar Scientific communit	ngers	M30	University of Exeter, Cetaqua			



Result	Assessment o	f city	resilience in Barcelon		Туре	Publication	
Owner	Aquatec WP 4		CODE		44-Pub		
Action	Description			Target		Planning	Responsible
European Change A	Presentation in the European Climate Change Adaptation Conference  Abstract "Holistic resilience analysis in Barcelona in a context of climate change" for the ECCA 2019		Local polic city manag utility mar Public and investors	nagers/	M37	Aquatec	
Scientific	ientific paper Paper on the results of the holistic resilience analysis in Barcelona		Scientific communit	у	M36	Aquatec Opticits	

Result	Assessment o	Assessment of city resilience in Lisbon					Publication		
Owner	Hidra WP 4		CODE		46-Pub				
Action	Description			Target		Planning	Responsible		
conference	Spring Conference assessment		steps on HAZUR ment implementation Water sectors ss in Lisbon		tor	M13	Hidra		
Presentati conference 2017)		HAZUR tool, implementation in Lisbon and main cascading effects due to flooding in Lisbon		Water sector		M19	Hidra		
Presentati conference (EWA/JSW		HAZUR assessment implementation process in Lisbon		General po	ublic	M25	Hidra		

Result	New functionalities of Hazur "Adaptation Strategies" module in Hazur					Туре	Software	
Owner	Opticits, Aquatec, Cetaqua 4		CODE		47-Soft			
Action	Description		Target		Planning	Responsible		
functional	alities in the eb-tool package under specific licence conditions.		-City mana -Utility ma -Project stakeholde (consulting companies	inagers ers	M42	Opticits		
Marketing dissemina campaign	tion created, this should be advertised		-City mana -Utility ma	ŭ	M42	Opticits and CETaqua		



commercialize	the	interested in	Adaptation	-Project	
product		Strategies in a cor	ntext of climate	stakeholders	
		change adaptation	1	(consulting	
				companies)	

Result	New functionality of HAZUR "Visualisation of Climate Change Scenarios module in Hazur"				Туре	Software	
Owner	Opticits, Aqua FIC	wP	tec, WP 4		CODE	48-Soft	
Action		Description		Target		Planning	Responsible
Inclusion of the new functionalities in the Hazur web-tool package		The new "Visualisation of C Scenarios" modu should be available users under spe conditions	ule in Hazur e to all existing	-City mana -Utility ma -Project stakeholde (consulting companies	inagers ers	M42	Opticits
Marketing and dissemination campaign to commercialize the product		Once the updat created, this shoul to attract new u interested in vi climate change sce	d be advertised users that are sualization of	-City mana -Utility ma -Project stakeholde (consulting companies	ers g	M42	Opticits, WP7

Result	Hazur Assessr	nent Module		Туре	Software		
Owner	Opticits	WP	4	4		49-Soft	
Action		Description		Target		Planning	Responsible
Update of the Hazur assessment module		The Hazur Assessn would be updated the inputs of the im and their lessons lea project, thus im current versions	d considering plementators rnt during the	-City mana -Utility ma -Project stakeholde (consulting companies -Multilate organization	ers g s) ral ons and	M48	Opticits
Marketing and dissemination campaign to commercialize the product		Once the Resilience process with Assessment module is done the results the expected update be advertised to	the Hazur in the 3 cities obtained and ed version will	-City mana -Utility ma -Project stakeholde	inagers	M26	Opticits

	adopters and new users that are interested in the capabilities of the new versions of the tool	(consulting companies) -Multilateral organizations and urban agencies		
Participation in scientific conferences and technical events	<ul> <li>European Conference Resilient Regions in Europe: paradigm and practical experience</li> <li>6th International Disaster and Risk Conference IDRC Davos 2016</li> <li>S2R: The Future Safety and Security Research in Europe</li> <li>Gestión de Riesgos y Crisis Operacionales</li> <li>Asamblea General Ordinaria de Socios de la Plataforma Tecnológica Española de Seguridad Industrial (PESI)</li> <li>Cascading Effects Conference. Understanding, modelling and managing cascading effects in crises</li> <li>EU-Workshop on Resilience in Cities and Communities</li> <li>Water Systems Research and Activities (Uni. Exeter)</li> <li>Joint Workshop DRS-7&amp;14 projects: Aligning the resilience-related research efforts in the EU DRS projects Sept 2017</li> <li>RESIN H2020 Meeting BXLS</li> <li>Final conference EU-Circle Dresden 2018</li> <li>OCDE Crtical Infrastructures Paris 2018</li> <li>Final Conference EPICURO London</li> </ul>	Researchers and practitioners, policy and decision makers, representatives UN, IGOs, universities, NGOs	M1-M30	Opticits
Participation in fairs, bilateral meetings, investors and business forums	<ul> <li>World Circular Economy Forum (WCEF) 2017</li> <li>Participation Climate Venture Acceleration Program (US)</li> <li>World Bank Informal meeting (US)</li> <li>100 Resilient Cities Summit (US)</li> <li>NYC Office UN-Habitat (US)</li> <li>City of Philadelphia (US)</li> <li>Making cities resilient to disaster risk / Take a Leading Part in a Resilient Europe BXLS 2017 (100RC)</li> <li>Smart City Expo 2017</li> <li>Participation in the Ship2b program on Climate Change Entrepreneurs</li> </ul>	Cities, private sector, investors and multilaterals	M1-M30	Opticits



	<ul> <li>Tech Demo Day IQS</li> <li>La Salle Demo day</li> <li>Mobile World Congress &amp; 4YFN</li> </ul>			
	Congress Govern Digital Local-Catalonia Presentation to Engineering Association Barcelona 2018 Innovative Cities Nice 2018 EIP Smart Cities BXLS 2018 Regions Week 2018 III Jornada de Gestión Local Smart IESE Business School-DIBA			
	Barcelona Resilience Week     2018			
	<ul><li>Smart City Expo 2018</li><li>Sharing Cities 2018</li></ul>			
Participation in prescription documents, guides, papers, awards courses and studies	<ul> <li>WssTP Awards 2017</li> <li>Open Data Infrastructure for City Resilience. A Roadmap Showcase And Guide</li> <li>Catalogue Acció Generalitat 2017</li> <li>Catalogue Diputació de Barcelona 2017</li> <li>Presentation Dubai Awards UN Habitat</li> <li>Elaboration of a Municipal Guide for Resilience - Engineering Association Barcelona</li> <li>Publication in the BRIGAID Climate Change Innovators web</li> <li>Master Engineers 4 Smart Cities (Nice)</li> <li>Master Smart (La Salle, Barcelona)(ES)</li> <li>RMIT workshop (La Salle, Barcelona) (ES)</li> <li>IVD Resilience Strategy Course (FR)</li> <li>Participation in academic papers (See details in other section)</li> </ul>	Cities, private sector, investors and multilaterals	M1-M30	Opticits

Result	Hazur Manager Module			Туре	Software		
Owner	Opticits	WP	<b>W</b> P 4			50-Soft	
Action	Action Description Target			Planning	Responsible		



Update of the Hazur Manager module	The Hazur Manager module would be updated considering the inputs of the implementators and their lessons learnt during the project, thus improving the current versions	-City managers -Utility managers -Project stakeholders (consulting companies) -Multilateral organizations and urban agencies	M48	Opticits
Marketing and dissemination campaign to commercialize the product	Once the updated version is conceptualized early adopters will be contacted for beta testing and initial advertising. Once finally validated this should be advertised to attract new users that are interested in the capabilities of the new versions of the module	-City managers -Utility managers -Project stakeholders (consulting companies) -Multilateral organizations and urban agencies	M36	Opticits

Result	- New functionality of HAZUR"Visualisation of Climate Change Scenarios module in Hazur"  - Hazur Manager Module				Type	Software  47-Soft	
						48-Soft 50-Soft	
Action		Description	•	Target	-	Planning	Responsible
Participation scientific control and technical and technic	onferences	<ul> <li>Iclei Conference Bon</li> <li>European Resilience Congress Bonn</li> <li>OCDE Conferences o Critical Infraestructu</li> <li>COU Safe and Resilie Conferences</li> <li>ECCA Conference</li> <li>Terrassa Prepared an Resilient</li> <li>Global Platform for Insik Reduction</li> </ul>	n res nt	Research practition policy an makers, represent UN, universiti	ners, d decision tatives IGOs,	M30-M48	Opticits
Participation in fairs, bilateral meetings, investors and business forums		<ul> <li>Mobile World Congresor</li> <li>4YFN</li> <li>Congreso Ciudades Inteligentes</li> <li>Le Salon des Maires Collectivités Locale</li> </ul>		Cities, sector, and mult	private investors ilaterals	M30-M48	Opticits



	UCLG World Congress and World Council     Pollutech Paris     Smart City Expo 2019     La Salle Demo day 2019     EIP Smart Cities BXLS 2019     Innovative Cities Nice			
Participation in prescription documents, guides, papers, awards courses and studies	Smart City Expo Awards 2019  Master Engineers 4 Smart Cities (Nice)  Master Smart (La Salle, Barcelona)(ES)  Master Smart Cities UPC (ES)  RMIT workshop (La Salle, Barcelona) (ES)  IVD Resilience Strategy Course (FR) MOOC on city resilience  Participation in academic papers (See details in other section)	Cities, private sector, investors and multilaterals	M30-M48	Opticits

Result	Database and	tool f	or the selection of ac	strategies	Туре	Tool and datas	set	
Owner	Cetaqua	<b>WP</b> 5			CODE	51-Tool		
Action		Desc	ription		Target			Responsible
Blog article		strat	article "Adaptation regies: a must for resi s" published in the RE site				Cetaqua	
Abstract submission		RESO effect clima strat subn	bstract entitled "The CCUE approach for the ctiveness assessment ate-related adaptatio regies in urban areas" nitted for the Europe ate Adaptation Confe	of n was an	EU policy r City mana		M30	Cetaqua
		to the website tool in	the	General pu	ublic	M42	Cetaqua	

Result	Methodology for the selection of resilience strategies	Туре	Methodology
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Owner	Cetaqua	WP 5			CODE	52-Met		
Action		Desc	cription		Target		Planning	Responsible
Guidelines  This result will be included into the guidelines "How to effectively select and prioritise adaptation strategies to cope with climate impacts in cities"		City mana	gers	M41	Cetaqua, Aquatec			
Dissemina methodol	tion of the ogy	the strat mat estir	tegies based on co- rix, strategies inv mation, variation of r e matrix and cost	logy for esilience benefits estment recovery	- Scientific and technical community		M30-M42	Cetaqua

Result	Framework fo	or cities resilience diagno	osis		Туре	Methodology		
Owner	LNEC UN-Habitat	WP	6			53-Met		
Action		Description		Target		Planning	Responsible	
Dissemination of the methodology		Publication of a report the methodology and f its implementation and of a tool to application.	ramework, procedure	- City managers -Service managers		M48	LNEC UN-Habitat	
Dissemination of the methodology and of its application through diagnosis results		Publication of a paper the methodology application	describing and its	-Scientific and technical community		M42	LNEC UN-Habitat	
Resilient A Framewol	Assessment	General framework for assessment/for cities d considering the climate scope and focusing on services and infrastruct	liagnosis, e change the city,	City and services managers, scientific community		2018	LNEC	
Dissemina	tion (paper)	8th ICBR 2018  "Assessing contribution climate change adapta measures to build resil urban areas". Applicati Lisbon.	tion ience in	M31		M31	LNEC, CML	
Workshop		"LISBOA- Resiliência e / a Alterações Climáticas – Resilience and Adapt Climate Change". Promote and encourag communication among actors (public and priva	s   LISBON ation to ge g PT key	City mana municipali departmen and privat	ty nts, public	M13	CML LNEC EDPD ADTA HIDRA	



	Lisbon City Council and other local and national organizations.			
Workshop	WKS#1: Lisbon more resilient to climate change. Validation of the RAF. Promote stakeholders engagement	RESCCUE portuguese partners	M25	CML LNEC
Workshop	WKS#2 Bristol: Increasing Resilience to Climate Change. Validation of the RAF. Promote stakeholders engagement	RESCCUE partners	M30	Bristol CC, LNEC
Workshop	WKS#3 Barcelona: Increasing Resilience do Climate Change. Validation of the RAF. Promote stakeholders engagement	RESCCUE partners	M31	Barcelona CC, LNEC
Dissemination (paper)	ECCA - framework	City and services managers, scientific community	M37	LNEC
Dissemination (paper)	ECCA – Lisbon case	City and services managers, scientific community	M37	LNEC
Dissemination (article)	Scientific journal	Scientific community	M33-M44	LNEC
Manual	Manual of best practices for the development of Resilience Assessments	EU policy makers City and services managers, scientific community	M48	LNEC Cetaqua Aquatec

Result	Framework fo	or the Resilience Action I	r the Resilience Action Plan				
Owner	LNEC	WP	6		CODE	54-Met	
Action		Description		Target		Planning	Responsible
	issemination of the methodology		•	M48	LNEC		
	semination of the hydrogenical paper describing thodology and its he methodology and its technical semination of the hydrogenical paper describing the hydrogenical paper described by the hydro			M48	LNEC		
Validation resilience developm RESCCUE	plan ent for	validation of the devel the resilience act identifying the in needed, the meth fundaments and	port the lopment of ion plan information nodologies, decisions ne plan	Cities and services, RESCCUE partners		M33-M44	LNEC
Manual			ervices scientific	M48	LNEC Cetaqua Aquatec		



Result	RESCCUE Assessment Framework Tool for application				Туре	Tool		
Owner	LNEC		WP	6		CODE	55-Tool	
Action		Desc	Description Target			Planning	Responsible	
Supportin	g guide	Guid	lelines to the RAF Too	ol use	City and se managers	ervices	M31	LNEC
Presentati	sentation RAF Tool presentation C		City and services managers		M31	LNEC		
Dissemina	Dissemination (paper) Conference C		City and se managers	ervices	M33-M44	LNEC		

Result	Resilience Act	tion Plan of Barcelona Type					Publication	
Owner	Barcelona LNEC, UN-Hab Aquatec	CC, oitat,	WP	6		CODE 56-Pub		
Action		Desc	cription		Target		Planning	Responsible
Manual	Barcelona Resilience Action Plan  Barcelona city and services managers			M48	LNEC Cetaqua Aquatec Barcelona CC			
Presentat	ion	Barc in th Resi	developments on elona's RAP were pre e meeting with Paris lience Officer, held in 3 in Paris	vere presented th Paris Chief		gers	M26	Barcelona CC
Presentati	ion	Bard pres "Clin Infra	developments on elona's RAP will be ented in the worksho nate Resilient Cities a istructures", that will ctober 2018 in Brusse	nd be held	nd pe held		M30	UN-Habitat
Dissemina	tion (paper)				City and se managers, communit	scientific	M33-M44	LNEC Cetaqua Aquatec Barcelona CC

Result	Resilience Action Plan of Bristol				Туре	Publication	
Owner	Bristol CC, LI UN-Habitat, Aquatec	NEC,	<b>WP</b> 6		CODE	57-Pub	
Action	Action Description Ta		Target		Planning	Responsible	
Manual	Bristol Resilience Action Plan Bristol ser managers		vices	M48	LNEC Cetaqua Aquatec Bristol CC		



Presentation	First developments on Bristol's RAP were presented in the meeting with Paris Chief Resilience Officer, held in June 2018 in Paris	City managers	M26	Bristol CC
Presentation	First developments on Bristol's RAP will be presented in the workshop "Climate Resilient Cities and Infrastructures", that will be held in October 2018 in Brussels.	City managers	M30	UN-Habitat
Dissemination (paper)		City and services managers, scientific community	M33-M44	LNEC Cetaqua Aquatec Bristol CC

Result	Resilience Act	nce Action Plan of Lisbon				Туре	Publication			
Owner	CML, LNEC, Habitat, Aqua		WP	6		CODE	58-Pub			
Action		Desc	cription		Target		Planning	Responsible		
Manual		Lisbo	sbon Resilience Action Plan  Lisbon city and services managers						M48	LNEC Cetaqua Aquatec CML
Presentati	ion	First developments on Lisbon's RAP were presented in the meeting with Paris Chief Resilience Officer, held in June 2018 in Paris		gers	M26	CML				
Presentati	ion			City mana	gers	M30	UN-Habitat			
Dissemina	tion (paper)						M33-M44	LNEC Cetaqua Aquatec Bristol CC		



# Annex 1. Complete list of events in which RESCCUE was presented

Event	When	Month	Where	Web
Resilient Regions in Europe: paradigm and practical experiences	13-14/06/2016	M2	Bilbao, Spain	https://www.fit4sec. de/en/events/detailp age- event/artikel/europe an-conference-on- resilient-regions-in- europe-paradigm- and-practical- experiences/
Leading Edge Conference on Water and Wastewater Technologies" (LET)	13-16/06/2016	M2	Jerez de la Frontera, Spain	http://www.let2016. org/es
Open European Day 2016	05/07/2016	M3	Bonn, Germany	http://resilientcities2 016.iclei.org/open- european-day/
World Smart City Forum	13/07/2016	M3	Singapore, Singapore	http://www.worldsm artcity.org/program me/
EurEau and COP22 - Our role in ensuring a resilient water sector	19-21/09/2016	M5	Copenhagen, Denmark	
RESILENS Tabletop Testing Workshop to critical infrastructures operators	06/10/2016	M6	Lisbon, Portugal	http://resilens.eu/lis bon-table-top- testing-for-the- resilens-tools/
International Conference: Cultural Heritage: Disaster, Preparedness, Response and Recovery	November 2016	M7		
National meeting: transports workgroup for the National Strategy of Adaptation to Climate Change	February 2017	M10	Portugal	
DRMKC Workshop with FP7 and H2020 projects on critical infrastructure protection	16/03/2017	M11	Brussels, Belgium	
RESILENS General Assembly Meeting	March 2017	M11		
26th UN-Habitat Governing Council	03-07/04/2017	M12	Nairobi, Kenya	

2017 Global Platform for Disaster Risk Reduction (Special session for local governments (23 May) and special session on coherence)	22-26/05/2017	M12	Cancun, Mexico	http://www.unisdr.or g/conferences/2017/ globalplatform/en
Lisbon Pilot Demonstration: RESILENS - Realising European ReSILiencE for Critical INfraStructure	April 2017	M12		
European Workshop on Resilience in Cities and Communities (SMR project)	04/04/2017	M12	Berlin, Germany	http://smr- project.eu/home/ho me/
Maria Telhado co-author on EWA Spring Conference 2017, SANITATION APPROACHES AND SOLUTIONS AND THE SUSTAINABLE DEVELOPMENT GOALS	May 2017	M13		
National Meeting of EU Project CUIDAR Presentation "Education for the risk".	May 2013	M13		
ECCA 2017: 3rd European Climate Change Adaptation Conference, Special session "Guidance for EU and national bodies in identifying options for innovative solutions to increase resilience"	05-09/06/2017	M14	Glasgow, Scotland	http://ecca2017.eu/c onference/
World Circular Economy Forum 2017	05-07/06/2017	M14	Helsinki, Finland	https://www.sitra.fi/ en/projects/world- circular-economy- forum- 2017/#wcef2017
[Poster] EIP Porto Water Conference 2017	July 2017	M17	Porto, Portugal	
JIA (Jornadas de Ingeniería del Agua) 2017	25/26/10/2017	M18	A Coruña, Spain	http://geama.org/jia 2017/
2nd edition Security Journeys "A segurança e a prevenção na proteção dos bens culturais   Security and prevention in the protection of cultural goods"	November 2017	M19		

[Poster] O Caminho da	November 2017	M19		
Inovação – Expo &				
Networking				
Encontro de Quadros da	November 2017	M19		
CML   Meeting Staff of CM				
1 <sup>st</sup> Portuguese Resilient	February 2018	M22		
Cities Meeting "From the	·			
disclosure to action"				
III Cross border conference	6-7/03/2018	M23	Irun, Spain	http://www.uhinak.c
on climate and coastal	0 770372010	14.23	ii aii, spaiii	om/programa.asp?ln
change				g=en
	March 2018	M23		g-cii
European Civil Protection	IVIAICII 2018	IVIZ3		
Forum 2018   Roundtable				
"Scaling Up Disaster				
Prevention: from local to				
European level".				
Symposium STORM, Risk	April 2018	M24		
and Heritage in Portugal				
Risco e Património em				
Portugal, Lisboa Resiliente:				
como prevenir e preparar a				
cidade				
Meeting Point Lisboa E-	April 2018	M24		
Nova.	April 2018	10124		
Resilient city: a strategy to				
disaster risk reduction".	/ /			1
International Conference	25-27/04/2018	M24	Barcelona,	http://premc.org/con
on Renewable Energy			Spain	ferences/icren-
(ICREN 2018)				renewable-energy/
Resilient cities 2018	26-28/04/2018	M24	Bonn,	https://resilientcities
			Germany	2018.iclei.org/
ICGUR 2018 : 20th	21-22/09/ 2018	M29	Amsterdam,	https://waset.org/co
International Conference	, ,		The	nference/2018/09/a
on Governance and Urban			Netherlands	msterdam/ICGUR/ho
Resilience				me
Resilience				<u>mc</u>
IMA Morld Congress	16.21/00/2019	M29	Tokyo Janan	http://www.worldwa
IWA World Congress	16-21/09/2018	IVIZ9	Tokyo, Japan	http://www.worldwa
Climata Davillant Cit	00/10/2010	N430	Davies sta	tercongress.org/
Climate Resilient Cities and	09/10/2018	M30	Brussels,	http://www.resin-
Infrastrcutures 2018			Belgium	cities.eu/conference/
BRIGAID Project Meeting	18-19/10/2018	M30	Cartagena,	https://brigaid.eu/
			Spain	
11 Congreso Internacional	17-19/10/2018	M30	Cartagena,	http://aeclim.org/do
AEC			Spain	cumentacion/xi-
				congreso-
				internacional-aec-
				cartagena-2018/
				our tagerra zo zo j



Smart City Expo World Congress	13-15/11/2018	M31	Barcelona, Spain	http://www.smartcit yexpo.com/en/home
8th International Conference on Building Resilience (8th ICBR)	14-16/11/2018	M31	Lisbon, Portugal	http://2018.buildresil ience.org/
European Forum on Disaster Risks Reduction	21/11/2018	M31	Rome, Italy	https://www.unisdr. org/conference/2018 /efdrr
Workshop Metropolitan Plan to climate change adaptation	30/11/2018	M31	Lisbon, Portugal	
2018 European Forum on Disaster Risk Reduction	21-23/11/2018	M31	Rome, Italy	https://www.unisdr. org/conference/2018 /efdrr