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

WWW.RESCCUE.EU

#resccueEU

RESCCUE

RESILIENCE TO COPE WITH CLIMATE CHANGE IN URBAN AREAS.

DISSEMINATION AND EXPLOITATION PLAN

(2nd UPDATED VERSION)

Main author/s: M. Martínez, M. Velasco, A. Buskute and D. Pacheco

Affiliation: Aquatec and Cetaqua

Date: 15th October 2020

RESILIENCE TO COPE WITH CLIMATE CHANGE IN URBAN AREAS.

RESCCUE - RESilience to cope with Climate Change in Urban arEas - a multisectorial approach focusing on water
Grant Agreement no.700174.

DELIVERABLE NUMBER:	D7.8
DELIVERABLE NAME:	DISSEMINATION AND EXPLOITATION PLAN (2nd UPDATED VERSION)
WP:	WP7
DELIVERY DUE DATE:	15/10/2020
ACTUAL DATE OF SUBMISSION:	15/10/2020
DISSEMINATION LEVEL:	Public
LEAD BENEFICIARY:	Aquatec
MAIN AUTHOR:	Montse Martínez (Aquatec), Marc Velasco (Aquatec), Aira Buskute (Cetaqua) and David Pacheco (Cetaqua)
CONTRIBUTOR(S):	Ignasi Fontanals (Opticits), Barry Evans (University of Exeter), Beniamino Russo (Aquatec), Robert Monjo (FIC), Adriana Cardoso (LNEC), José Luis Dominguez (IREC), Marco Morais (CM Lisboa) and Helene Fourniere (UN Habitat)
INTERNAL REVIEWER:	Angel Villanueva (Aquatec)
EXTERNAL REVIEWER:	Eduardo Martinez (Cetaqua)

Document history

DATE	VERSION	AUTHOR	COMMENTS
31/05/2017	1.0	Montse Martínez	First draft of the document
06/07/2017	1.1	Aira Buskute Montse Martínez Marc Velasco	First completed version
13/07/2017	1.2	Ignasi Fontanals Ester Vendrell	Review of the first completed version

24/07/2017	1.3	Marc Velasco	The reviews of the several project partners members have been included
03/08/2017	Final	Marc Velasco	The reviews of the internal and external reviewers have been included
20/04/2018	2.0	Aira Buskute	An updated version that integrates the changes suggested in the EC Review Report.
30/04/2018	Final	Marc Velasco	The reviews of the internal and external reviewers have been included
21/12/2018	3.0	Montse Martinez David Pacheco	The reviews of EC project advisor have been taken into account to improve the "plan" itself
08/01/2019	Final	Marc Velasco	The reviews of the internal and external reviewers have been included
10/10/2020	Draft	David Pacheco	First draft of the 2nd updated version
9/12/2020	Final	David Pacheco	The reviews of EC project advisor have been taken into account. Final version of the deliverable.
17/05/2021	Final	David Pacheco	The new reviews of EC project advisor have been taken into account. Updated final version of the deliverable.

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

RESCCUE
RESILIENCE TO COPE WITH CLIMATE CHANGE IN URBAN AREAS.

Table of contents

RESCCUE
RESILIENCE TO COPE WITH CLIMATE CHANGE IN URBAN AREAS.

Summary of Tables

Summary of Figures

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[1].

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?

[1] 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	Type	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCCUE	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	-	-	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	-	-	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	Yes	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)	Yes	7	8	Yes

Code	Result	Type	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCCUE	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	Yes	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	Yes	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	Yes	4	6	Yes
17-Data	Simulation of impacts on the traffic model	Dataset	2	Barcelona CC	M36	No	No	No	-	-	No

Code	Result	Type	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCCUE	To be protected?
18-Mod	Urban drainage model in Lisbon	Model	2	Hidra and CML	M24	Yes	Yes	Yes	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	Yes	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	BCC	M24	Yes	No	Yes	7	8	Yes
25-Data	Urban drainage simulations in Bristol	Dataset	2	BCC	M36	No	No	No	-	-	No

Code	Result	Type	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCCUE	To be protected?
26-Mod	Tidal and Fluvial Flooding model in Bristol	Model	2	BCC	M24	Yes	No	Yes	6	8	Yes
27-Data	Tidal and Fluvial Flooding simulations in Bristol	Dataset	2	BCC	M36	No	No	No	-	-	No
28-Mod	Integrated flooding - traffic model in Bristol	Model	2	Uni Exeter	M24	Yes	Partially (guidelines)	Yes	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	Yes	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	Type	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCCUE	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	Type	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCCUE	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	-	-	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	Type	WP	Owner(s)	Delivery date	Background?	To be disseminated?	To be exploited?	TRL before RESCCUE	TRL after RESCCUE	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:

Aquatec	Cetaqua	FIC	OptiCits	Uni Exeter	LNEC	Barcelona CC	IREC	UN-Habitat	Endesa	Lisbon CC	EDP	Hidra	Bristol CC	Wessex Water	Urban DNA	AdP	EIVP
15	20	5	2	2	4	2	4	1	2	5	2	5	2	1	2	2	2

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 projec**t. 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 has been be regularly reviewed and updated as needed, as long as the whole consortium validated the modifications proposed. This document represents the final version of C&D Plan, submitted on M55.

Regarding the structure of this document, its main body is the description of RESCCUE communication and dissemination strategy, followed by a brief chapter on the specific actions that will be carried out to foster the replicability of the project results and a description of the 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** was 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, has been 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** has covered 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 were expected to help in engaging local communities, potential stakeholders and key decision makers.

On-line *vs.* off-line

RESCCUE seeked to be a **far-reaching project**, it is for this reason why whenever possible it has used online platforms for its communication and dissemination activities. The project website (*see* 4.3.5.1.2.1 Online communication activities) has been periodically publish all the information related to the day-to-day matters and significant project outcomes. Additionally, **social media has been 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. Regarding the promotional materials, despite of printed copies, digital versions were 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 have been 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 have been 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, has obtained significant project outputs in the latest stage of the project lifetime. In response to that, project

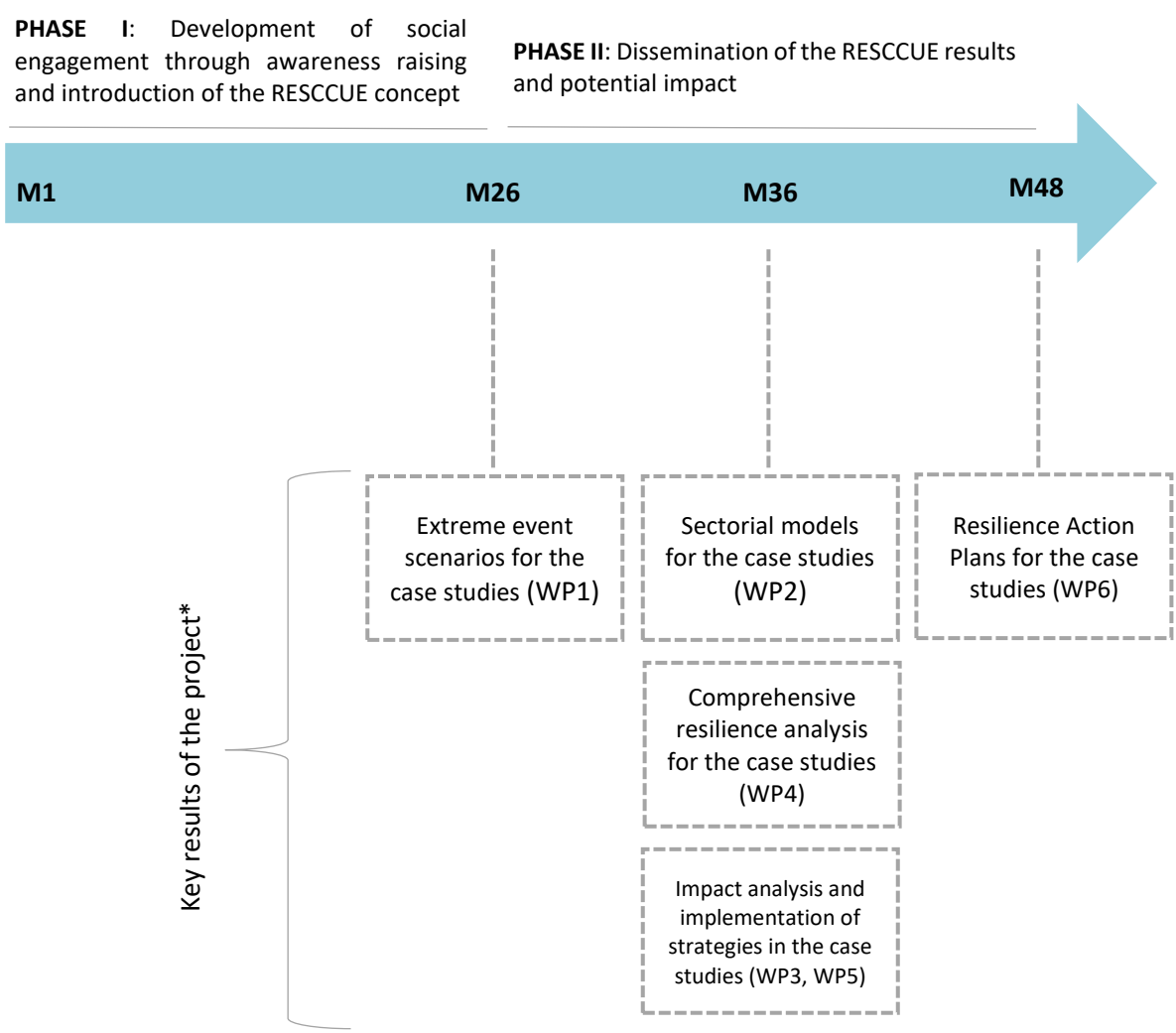
communication and dissemination strategy is composed of **two phases**: the initial one, focused of **conceptual communication** and second one aimed to **disseminate project main results**. Each phase is represented by one or several key messages to de delivered. Both phases of RESCCUE communication 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* consisted in **presenting the main ideas of urban resilience and its benefits to the society**. In other words, when possible, the global context has been 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 have been obtained, the communication has been 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 stared to achieve first key results from the month 24, the second phase of RESCCUE communication and dissemination strategy was focused on **dissemination of concrete project outputs placing emphasis on its potential impact**. To do so, the RESCCUE Toolkit, a platform where all the project's main results are gathered, was created. Specific actions for this phase can be found at **¡Error! No se encuentra el origen de la referencia.** Specific actions to foster replicability	*The RESCCUE toolkit gathers all the project's main results. This platform can be used by any city to apply RESCCUE tools and methodologies to improve its resilience to climate change impacts.*

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.

Figure 1 Phases of communication and dissemination strategy



**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.*

For 39 of the 58 project results, several dissemination and/or exploitation actions were carried out. The complete list of **communication and dissemination actions carried out throughout the lifetime of the project** to spread these results can be found at 6 Dissemination and exploitation actions.

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

	• 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

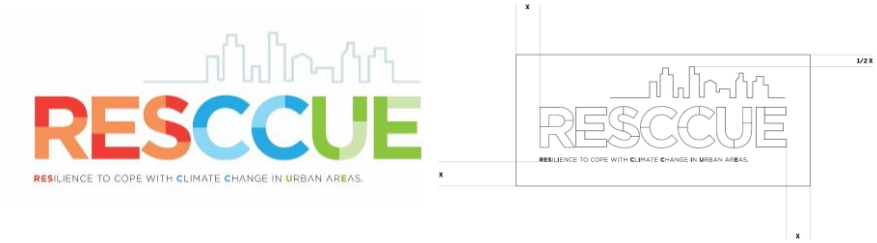
As stated previously, citizens are the principal beneficiaries of the RESCCUE project and this makes it crucial to explain them the essence of the project in an easy-to-understand language. In order to achieve it, much attention has been given to mass communication which refers to **delivery of messages 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.

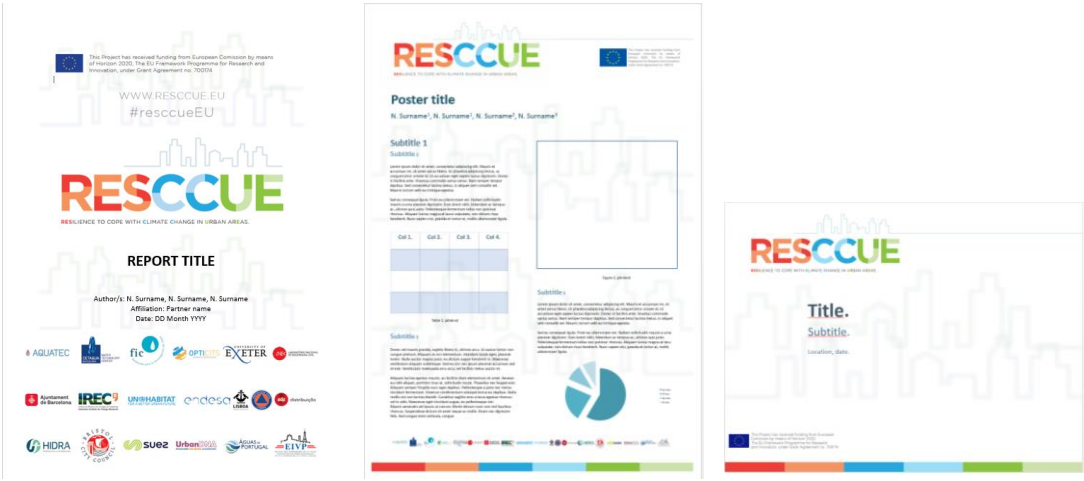


Visual Identity Manual

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

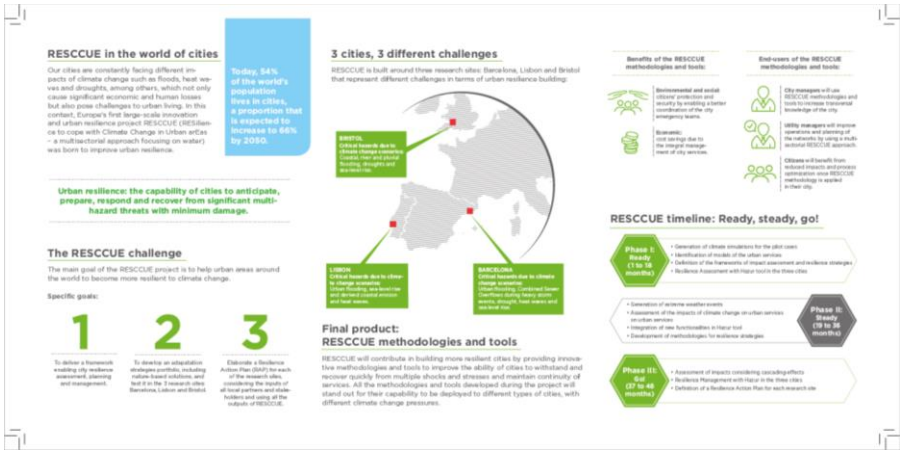
In search of visual coherence in dissemination materials and events, a kit of graphic materials was developed in line with the brand identity during the second year of the project. The kit contains infographics, schemes, icons and timelines aimed to be used by all the project partners in different contexts: 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. A leaflet was planned with the aim of spreading the word about the project, especially during the evnts. The leaflet, which provides a brief overview of the RESCCUE context, its main objectives, and explains the evolutions and expected results of the project, was used in difered events and handed out to interested audiences.



4.3.5.1.2 Online and offline communication activities

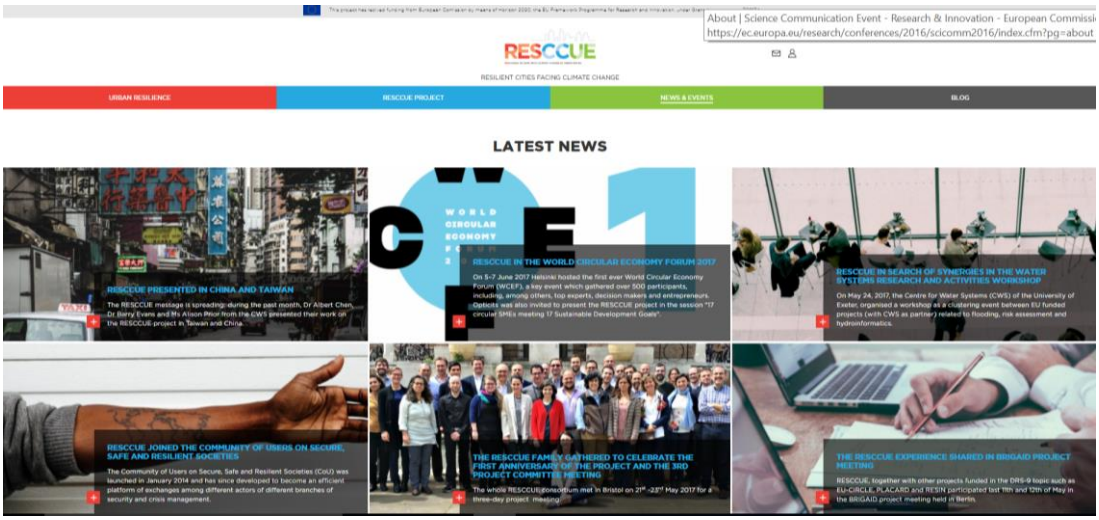
In the framework of RESCCUE, communication activities are understood as all those initiatives that are aimed to provide real-time information about the project. In other words, the objective of communication activities is to keep the audience updated, to sustain their interest in the project. This kind 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 resilience	To introduce the concept of urban resilience to the audience without a specific knowledge of it.	A brief text provides a global vision on urbanisation, explains the challenges our cities are facing due to the climate change and presents the benefits of implementing urban resilience-focused measures.	Static.
RESCCUE project	To provide relevant information about the project.	This section explains the context the project, highlights its motivations, 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.	Static.
News and events	To present the most recent achievements and activities carried out in the framework of the project.	Three sub-sections can be found here: news, events and media.	Dynamic, with regular updates
Blog	To raise awareness on climate change and urban	The RESCCUE blog is the most distinctive element of the website	Dynamic, with

	resilience and to present the RESCCUE project from the perspective of different project partners.	and the most powerful tool for creating engagement with new visitors. All the project partners collaborate by providing blog entries according to the RESCCUE blog schedule published in Basemap, a platform for internal communication among project consortium.	regular updates every two weeks

Table 5 RESCCUE website structure

Social media

Twitter is the principal social media channel for RESCCUE communication. Cetaqua has te tweeted 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 seeked to appear in different kind of media channels in order to extend the impact. Several press releases were prepared during the four years of the project and at present RESCCUE counts with over 210 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 have disseminated principal outputs on these two routes mentioned above, reaching 34 published papers, including 3 Special Issues (SI). To achieve an aligned, effective and efficient dissemination, some procedures and best practices guidelines were established and are described subsequently.

4.3.5.2.1 Procedures, guiding principles and authorship issues

Scientific papers and other dissemination materials

In RESCCUE, all the project partners disseminated project achievements and results in scientific journals, as long as it complied 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 identified different events on both national and international levels where the RESCCUE project could be presented. In RESCCUE, all the project partners disseminated project achievements and results in the events, as long as it complied with procedures established and meets the following requirements.

The **full list of events and conferences where RESCCUE was presented** can be found in Annex 1.

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.

Scientific publications

During lifetime of the project, **34 scientific papers have been published.**

Besides, under the necessity of raising awareness on urban resilience, the project's team has guest edited 2 Special Issues (SI) in Sustainability, an open access journal from MDPI. The full list of papers published by RESCCUE can be found below:

Title	Author/s	Journal	DOI
Approach to develop a climate change resilience assessment framework	Cardoso, M.A., Brito, R.S., Almeida, M.C	H2Open Journal	https://doi.org/10.2166/h2oj.2020.003

Avaliação da resiliência dos serviços urbanos de águas face às alterações climáticas	Cardoso, M.A., Brito, R.S., Pereira, C., David, L.M., 2020	Revista Águas & Resíduos, série IV	https://doi.org/10.22181/aer.2020.0606
Interlinking Bristol Based Models to Build Resilience to Climate Change	John Stevens, Rob Henderson, James Webber, Barry Evans, Albert Chen, Slobodan Djordjević, Daniel Sánchez-Muñoz and José Domínguez-García		DOI: https://doi.org/10.3390/su12083233
Electrical grid risk assessment against flooding in Barcelona and Bristol cities	Daniel Sánchez-Muñoz, José L. Domínguez-García, Eduardo Martínez-Gomariz, Beniamino Russo, John Stevens and Miguel Pardo.		https://doi.org/10.3390/su12041527
Desarrollo y aplicación de curvas de daño y estanqueidad para la estimación del impacto económico de las inundaciones en zonas urbanas españolas.	Martínez-Gomariz, E., Guerrero-Hidalga, M., Russo, B., Yubero, D., Gómez, M., Castán, S.	Ing. del agua 23	https://doi.org/10.4995/ia.2019.12137
Evaluación de la resiliencia de los servicios urbanos frente a episodios de inundación en Barcelona	Russo, B., Velasco, M., Monjo, R., Martínez-Gomariz, E., Sánchez, D., Domínguez, J.L., Gabàs, A., Gonzalez, A	Ing. del agua 24	https://doi.org/10.4995/ia.2020.12179
La resiliencia de -Barcelona frente al cambio climático: el proyecto resccue	Malgrat P., Martínez E., Russo B., Vela S., Velasco M., Gabàs A., Marin D	V Edición de las Jornadas de Ingeniería del Agua	
Evaluating city resilience and services cascade effects in flooding scenarios	Lopes, R., Barreiro, J., Ferreira, F., Matos, J. S. and Brito, R.	6th EWA/JSWA/WEF Joint Conference: The Resilience of the Water Sector	
Resiliência urbána face ás alteraçoes climáticas: inundações e efeitos em cascata na cidade de Lisboa	Barreiro, J., Lopes, R., Ferreira, F., Brito, R., Fontanals, I., Vendrell, E., Matos, J. S. and Matos, R.	Encontro Nacional de Entidades Gestoras de Água e Saneamento.	
Urban drainage and resilience aprroaches towards more sustainable cities	Lopes, R., Tonon, I., Ferreira, F., Matos, J. S., Barreiro, J., Matos, R., Brito, R., Fontanals, I., Vendrell, E. and Telhado, M.	Urban drainage and resilience approaches towards more sustainable cities. EWA - 2nd European Water Association Spring Conference.	

Resilience to cope with climate change in lisbon- a multisector aprroach focusing on water. Risk identification for urban services	Almeida, M.C., Cardoso, M.A., Telhado, M.J., Morais, M., Silva, I., Pestana, M.L., Matos, J.S., Lopes, R., Póvoa, P., Alves, R.	ICUD 2017 – 14th International Conference on Urban Drainage, Prague, Czech Republic	
Local decadal prediction according to statistical/dynamical approaches	Dario Redolat, Robert Monjo, Cesar Paradinas, Javier Pórtoles, Emma Gaitán, Carlos Prado-Lopez, and Jaime Ribalaygua.	International Journal of Climatology	DOI: 10.1002/joc.6543.
Meteorological drought lacunarity around the world and its classification	Robert Monjo, Dominic Royé and Javier Martin-Vide.	Earth System Science Data	DOI: 10.1002/joc.6543.
Raf resilience assessment frame work- a tool to support cities' action planning	Maria Adriana Cardoso ,Rita Salgado Brito, Cristina Pereira ,Andoni Gonzalez ,John Stevens and Maria João Telhado.	International Journal of Climatology.	https://doi.org/10.3390/su12062349.
An approach to the modelling of stability of waste containers during urban flooding	Eduardo Martínez-Gomariz, Beniamino Russo, Aurea Plumed and Manuel Gómez	Chartered Institution of Water and Environmental Management.	DOI: 10.1111/jfr3.12558.
Hazards threatening underground transport systems	Edwar Forero-Ortiz, Eduardo Martínez-Gomariz.		https://doi.org/10.1007/s11069-020-03860-w
Resilience to cope with climate change in urban areas—a multisectorial approach focusing on water—the resccue project	Marc Velasco, Beniamino Russo, Montserrat Martínez, Pere Malgrat, Robert Monjo, Slobodan Djordjevic, Ignasi Fontanals, Salvador Vela, Maria Adriana Cardoso and Aira Buskute	Water 2018, 10	doi:10.3390/w10101356
Upper-level mediterranean oscillation index and seasonal variability of rainfall and temperature	Dario Redolat, Robert Monjo, Joan A. Lopez-Bustins, Javier Martin-Vide	Theoretical and Applied Climatology	http://dx.doi.org/10.1007/s00704-018-2424-6.
Mapping urban infrastructure interdependencies and fuzzy risks	Barry Evans, Albert S. Chen, Alison Prior, Slobodan Djordjevic, Dragan A. Savic, David Butler, Patrick Goodey, John R. Stevens and Graham Colclough,	Procedia Engineering	https://doi.org/10.1016/j.proeng.2018.01.105
RAF Resilience Assessment Framework—A Tool to Support Cities' Action Planning	M.A Cardoso, R. Salgado Brito, C. Pereira, A. Gonzalez, J. Stevens, M. João Telhado	Sustainability	https://www.mdpi.com/2071-1050/12/6/2349/htm
Special Issue "Integrated Assessment of Climate Change Impacts and Urban Resilience: from Climate and Hydrological Hazards to Risk Analysis and Measures" (Sustainability - MDPI)			

Integrated Assessment of Climate Change Impacts and Urban Resilience: From Climate and Hydrological Hazards to Risk Analysis and Measures	Marc Velasco ,Beniamino Russo and Eduardo Martínez-Gomariz	Sustainability	https://doi.org/10.3390/su12166430
Assessment of Urban Flood Resilience in Barcelona for Current and Future Scenarios. The RESCCUE Project	Beniamino Russo ,Marc Velasco ,Luca Locatelli ,David Sunyer ,Daniel Yubero ,Robert Monjo ,Eduardo Martínez-Gomariz ,Edwar Forero-Ortiz ,Daniel Sánchez-Muñoz ,Barry Evans andAndoni Gonzalez Gómez	Sustainability	https://doi.org/10.3390/su12145638 -
Flood Risk Assessment in an Underground Railway System under the Impact of Climate Change—A Case Study of the Barcelona Metro	Edwar Forero-Ortiz ,Eduardo Martínez-Gomariz ,Manuel Cañas Porcuna ,Luca Locatelli andBeniamino Russo	Sustainability	https://doi.org/10.3390/su12135291
Methodology to Prioritize Climate Adaptation Measures in Urban Areas. Barcelona and Bristol Case Studies	María Guerrero-Hidalga ,Eduardo Martínez-Gomariz ,Barry Evans ,James Webber ,Montserrat Termes-Rifé ,Beniamino Russo andLuca Locatelli	Sustainability	https://doi.org/10.3390/su12124807 -
Socio-Economic Assessment of Green Infrastructure for Climate Change Adaptation in the Context of Urban Drainage Planning	Luca Locatelli ,Maria Guerrero ,Beniamino Russo ,Eduardo Martínez-Gomariz ,David Sunyer andMontse Martínez	Sustainability	https://doi.org/10.3390/su12093792
Interlinking Bristol Based Models to Build Resilience to Climate Change	John Stevens ,Rob Henderson ,James Webber ,Barry Evans ,Albert Chen ,Slobodan Djordjević ,Daniel Sánchez-Muñoz andJosé Domínguez-García	Sustainability	https://doi.org/10.3390/su12083233
Flood Depth–Damage Curves for Spanish Urban Areas	Eduardo Martínez-Gomariz ,Edwar Forero-Ortiz ,María Guerrero-Hidalga ,Salvador Castán andManuel Gómez	Sustainability	https://doi.org/10.3390/su12072666
The Contribution of NBS to Urban Resilience in Stormwater Management and Control: A Framework with Stakeholder Validation	Paula Beceiro ,Rita Salgado Brito andAna Galvão	Sustainability	https://doi.org/10.3390/su12062537 -
RAF Resilience Assessment Framework—A Tool to Support Cities' Action Planning	Maria Adriana Cardoso ,Rita Salgado Brito ,Cristina Pereira ,Andoni Gonzalez ,John Stevens andMaria João Telhado	Sustainability	https://doi.org/10.3390/su12062349 -
Investigating the Effects of Pluvial Flooding and Climate Change on Traffic Flows in Barcelona and Bristol	Barry Evans ,Albert S. Chen ,Slobodan Djordjević ,James Webber ,Andoni González Gómez andJohn Stevens	Sustainability	https://doi.org/10.3390/su12062330

Urban Resilience to Flooding: Triangulation of Methods for Hazard Identification in Urban Areas	Maria do Céu Almeida ,Maria João Telhado ,Marco Morais ,João Barreiro andRuth Lopes	Sustainability	https://doi.org/10.3390/su12062227 -
Climate Change Implications for Water Availability: A Case Study of Barcelona City	Edwar Forero-Ortiz ,Eduardo Martínez-Gomariz andRobert Monjo	Sustainability	https://doi.org/10.3390/su12051779
Electrical Grid Risk Assessment Against Flooding in Barcelona and Bristol Cities	Daniel Sánchez-Muñoz ,José L. Domínguez-García ,Eduardo Martínez-Gomariz ,Beniamino Russo ,John Stevens and Miguel Pardo	Sustainability	https://doi.org/10.3390/su12041527 -
Special Issue "Urban resilience in a context of climate change" (Sustainability - MDPI)			
Increased Urban Resilience to Climate Change—Key Outputs from the RESCCUE Project	Marc Velasco, Beniamino Russo, Robert Monjo, César Paradinas, Slobodan Djordjević, Barry Evans, Eduardo Martínez-Gomariz, Maria Guerrero-Hidalga, Maria Adriana Cardoso, Rita Salgado Brito, David Pacheco	Sustainability	https://doi.org/10.3390/su12239881
Assessing Urban Resilience in Complex and Dynamic Systems: The RESCCUE Project Approach in Lisbon Research Site	João Barreiro, Ruth Lopes, Filipa Ferreira, Rita Brito, Maria João Telhado, José Saldanha Matos and Rafaela Saldanha Matos	Sustainability	https://doi.org/10.3390/su12218931

Table 6 Scientific papers submitted during the lifetime of the project

Events

Over the 4 years of RESCCUE, **the project has been presented in 67 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. The complete list of events in which RESCCUE has been presented can be found in Annex 1.

4.3.5.2.2 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 7 Networking with other projects

Common Dissemination Booster (CDB)

Besides, RESCCUE has led or participated in different joint dissemination initiatives in search of a greater impact at EU level. In this sense, in the first quarter of 2018, the application for the **Common Dissemination Booster (CDB)** services was accepted. This initiative, promoted by the European Commission, is dedicated to the dissemination of research projects' results. Finally, the cluster formed by 4 H2020 resilience-focused projects: RESCCUE, BRIGAID, RESIN and EU-CIRCLE, participated in the following services:

- Portfolio identification
- Portfolio Dissemination Plan Development
- Dissemination Campaign in Practice

This initiative ended with the participation of RESCCUE in the **RESIN Final Workshop** in Brussels, on the 8th October 2018. Nevertheless, there were some remaining resources from the Common Dissemination Booster that were used in 2019. Hence, during the first quarter of 2019, several **joint dissemination materials** have been created by the Common Dissemination Booster:

- Joint flyer with EU-Circle, BRIGAID, RESIN and RESCCUE, including the common message from the 4 projects.
- Press release on the participation in the ECCA 2019 conference.
- Joint slide including information on the RESCCUE group, to be used at ECCA 2019 and other dissemination events.
- Collaboration section on the RESCCUE website, about commonalities between the projects in the group.
- Joint video explaining the main challenges addressed by the projects in the group, as well as the reported results and main benefits.

European Urban Resilience Forum

On the other hand, RESCCUE sponsored the **European Urban Resilience Forum**, a Resilient Cities side event, organised by ICLEI in Bonn (Germany) on the 25th of June. As a sponsor, RESCCUE was present in all the communication materials of the event, installed a booth at the venue and different RESCCUE partners presented their work within the project.

European Climate Change Adaptation Conference (ECCA) 2019

Likewise, RESCCUE, together with BINGO and PLACARD was **one of the co-organisers of the European Climate Change Adaptation Conference (ECCA) 2019**, the largest conference on

climate change in Europe. This event, which was held in Lisbon from 28th to 31st May 2019, brought together national, regional and local researchers, technicians, decision-makers, authorities and agencies with responsibility for implementing climate change adaptation measures, business, non-governmental organisations and general society. Over 1000 participants joined the conference.

Being a co-organiser of ECCA 2019 was **a major opportunity for RESCCUE to gain visibility and disseminate its results,** reaching different audiences at a national, European and International level. Different communication actions, including appearances in general media (TV, newspapers, etc.), 12 press releases, several blog posts and social media contents (images and videos), among others, were carried out before, during and after the event. Information about RESCCUE was disseminated within these actions and materials.

Besides, **RESCCUE installed a booth at ECCA 2019**, which provided information on the project. Hence, during the conference days, technical and informative materials related to RESCCUE were handed out directly to the participants. Regarding scientific dissemination, different oral presentations were carried out by project partners to present RESCCUE's approach, research and results.

Aquatec-SUEZ Advanced Solutions and Cetaqua were **members of the ECCA 2019 Organising Committee**. During the year before the conference, the Organising Committee had periodical meetings to discuss different issues related to the organisation of the event, including communication, abstracts review, etc.

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 has been 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 were carried out in the framework of the RESCCUE project.

Action	Description	Objective	Scheduled delivery date	Delivered	Lead beneficiary
Project branding : •Project logo •Colour schemes •Templates •Merchandising materials • Kit of graphic materials	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.	The RESCCUE website is planned to become a reference portal of urban resilience.	M6	M6	Cetaqua
BLOG	To provide an experience platform for project partners, PAB members, key stakeholders and another actors involved.		n	M6	All project partners
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	Not done	Cetaqua

Action		Description	Objective	Scheduled delivery date	Delivered	Lead beneficiary
	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	M55	M55	Cetaqua
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	M44; M45; M55	Cetaqua

Action	Description	Objective	Scheduled delivery date	Delivered	Lead beneficiary
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 methodologies, best practices and success stories.	M55	M55	UN-Habitat, Cetaqua and Aquatec
Publications	General media	Media channels aimed to inform a broad audience.	M1-M55	M1-M55	All project partners
	Scientific articles	Specific media channels focused on one concrete subject.			
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-M55	M1-M55	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	M41	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	M41	Lisbon City Council

Table 8 Schedule of communication and dissemination activities

4.3.6.2 Monitoring and impact measurement

All the communication and dissemination activities have been 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	M55
Project branding : •Project logo •Colour schemes •Templates •Merchandising materials	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	No extra materials produced
Leaflet	Number of leaflets designed and copies printed	2 leaflets, 600 copies each one	1 leaflet with 1200 copies printed	*idem*	*idem*
Website	Average number of visits per month	300	350-400	*idem*	500
BLOG	Number of blog entries per month	2	2	*idem*	*idem (finished in M48)*
Digital Press Room	Average number of publications per month	3	3	*idem*	idem
User Workspace for project members (Basecamp)	n	n	n	n	n
Gamification activities	to be defined	to be defined	n	n	n

Action	Output Indicators	Result Indicators	M15	M24	M55
Social media	Number of tweets and mentions per year	100	208	146	350
Video	number of views on Youtube	1500	n	n	550
Presentation event with stakeholders	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	n
Local workshops	number of attendees and appearances in the media	50 attendees and 2 articles in general media	n	n	210 attendees in 3 local workshops (Barcelona, Lisbon anb Bristol) Over 25 articles in media about local workshops
Final conference	number of attendees and appearances in the media	100 attendees and 5 articles in general media	n	n	Over 550 participans. 36 impacts in media.
Articles publication	Number of articles published in general media	150	86	112	244
	Number of submition of papers	Submission of 10 papers	0	2 (submitted and published)	34
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	67 local and international conferences

Action	Output Indicators	Result Indicators	M15	M24	M55
3D learning materials	Visits to the materials		n	n	n

Table 9 Evaluation of communication and dissemination activities

4.3.6.3 Replicability and dissemination of RESCCUE results

Some specific materials have been prepared with the aim of disseminating the project results and fostering their replication in other cities:

RESCCUE Toolkit

Some of the main RESCCUE results have been packed in the RESCCUE Toolkit, an interactive space where the main project's results are gathered, along with a set of guidelines outlining the steps to be taken to make your city resilient. In this platform, all the tools, datasets and methodologies developed within RESCCUE can be found, sorted by topic and by the three case studies: Barcelona, Lisbon and Bristol. This platform will remain available **5 years after the project ends**.

The RESCCUE Toolkit is one of the key final materials aimed at fostering the replication of the project results in other cities.

This platform has been produced to accomplish the following objectives:

- Allow both general and specialised public to access information about the project outcomes, ensuring a successful dissemination of project achievements and results to all relevant stakeholders.
- 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

For the creation of this platform, the RESCCUE partners undertook a process of identification of project results to be included in the RESCCUE Toolkit. Using the table of exploitable results included in the D7.7 Dissemination and Exploitation Plan and the D8.5 Data Management Plan as the starting point, each WP leader selected the most relevant results that should be included in the RESCCUE Toolkit.

In order to upload these results properly to the platform, they were sorted by city, topic (WP), described using less than 100 words and tagged as:

- Dataset
- Methodology
- Publication

- Tabulated results
- Tool
- Tool and dataset
- Assessment results Maps in image format

Besides, other results of the RESCCUE project are also available on the Toolkit:

- **RESCCUE deliverables:** Deliverables are additional outputs, such as reports, that must be produced at a given moment during the project's lifetime. Within RESCCUE, several deliverables have been produced, which gather all the technical information related to the set of eight work packages (WPs) the project has been implemented through.

- **Scientific publications:** Scientific dissemination is vital to provide a stronger understanding of current research to the scientific community. RESCCUE has published several project-related papers in different peer-reviewed journal, as well as a special issue on the project published in the Sustainability Journal, entitled "Integrated assessment of climate change impacts and urban resilience: from climate and hydrological hazards to risk analysis and measures".

- **RESCCUE maps:** The maps developed within the RESCCUE project have been gathered in the Clarity project portal, a repository that compiles different case studies. Thanks to its powerful visualization platform, you can navigate through some of the RESCCUE project's main results in the form of maps.

- **Dissemination materials:** The communication and dissemination of the project is such an important task that completes the research period and goes beyond it. Multiple activities and materials were organized and created in order to facilitate information about the project, its objectives and outcomes, and to promote the widest application of the tools and methodologies developed in other contexts and places.

The complete table of results that have been included in the RESCCUE Toolkit can be found below:

Table 10 List of results included in the RESCCUE Toolkit

Result	BCN	LIS	BRI	Type	Topic	Description (60-100 words)
Climatic change scenarios of extreme events	x	x	x	Dataset	Climate change & extreme events scenarios	This dataset offers detailed information at a local scale about the future changes in the frequency and intensity of a wide variety of extreme variables due to climate change. The main variables analysed are: temperature-related events (heat waves, maximum temperature, tropical night, warm day, etc.), extreme rainfall, or storm surge, among others. The information provided follows the RCP 4.5 and 8.5, and is divided into three time periods: 2011-2040, 2041-2070 and 2071-2100. Thanks to the methodology implemented in RESCCUE, the use of quality-tested weather observations allows the replicability of these results into any other location
Flood hazard assessment in Barcelona, Lisbon, Bristol	x	x	x	Dataset	Strategic urban services modelling	The outputs of the hydrodynamic model (flood extension, flood depths and velocities) were used to generate flood hazard maps for pedestrian and vehicles according to experimental hazard criteria. Simulations were performed for different return periods related to current and future scenarios (including Business as usual and Adaptation scenarios) obtaining a specific hazard map for each case.
Integrated flooding – traffic simulations in Barcelona	x			Dataset	Strategic urban services modelling	According to the integrated flooding-traffic model in Barcelona, flood hazard maps were obtained by GIS spatial analysis of the flooded road links (with specific rules applied in relation to traffic speed reductions) and by flow depths provided by 1D/2D hydrodynamic model. Moreover, the dataset is built on the results of TranscCAD modelling software that, on the basis of pre-calculated hazard maps, was used to simulate the flood economic impacts due to traffic disruption. Simulations were carried out for current and future scenarios (including Business as usual and Adaptation scenarios).
Integrated flooding – traffic simulations in Bristol			x	Dataset	Strategic urban services modelling	This dataset is built on utilising flood hazard data coupled with road network information as a means of modifying speed limit parameters of inundated roads within a micro-scale traffic model. For the Bristol case study the Open Source traffic modelling software SUMO (Simulating Urban Mobility) tool was applied (https://sumo.dlr.de/docs/). For comparative analysis, simulations under various flooded conditions are compared against dry weather conditions.

Sea level rise impact model	x	x	x	Dataset	Strategic urban services modelling	Critical infrastructures and services potentially exposed to sea level rise for the horizon of 2100 have been represented by exposure maps for RCPs 4.5 and 8.5 scenarios.
Assessment of marine model impacts	x	x	x	Dataset	Strategic urban services modelling	Integrated urban drainage – marine model provided temporal and spatial evolution of pollution in receiving bathing water. Dataset is built with time series of rainfall, CSO discharges and pollution in representative points of bathing water during the characteristic bathing season of the year 2009.
Flood intangible damage assessment in Barcelona	x			Dataset	Impact assessment & cascading effects	Hazard maps were also combined with vulnerability maps to provide flood risk maps for pedestrian and vehicles. Risk maps were obtained for different return periods related to current and future scenarios (including Business as usual and Adaptation scenarios).
Flood tangible damage assessment in Barcelona and Bristol	x			Dataset	Impact assessment & cascading effects	Hydrodynamic outputs (flood depths) were used to feed the flood direct damage model. This model, based on this information, detailed land use maps and tailored flood depth damage curves, provided economic risk maps for different return periods related to current and future scenarios (including Business as usual and Adaptation scenarios).
Integrated flooding – electrical simulations in Barcelona and Bristol	x		x	Assessment results Maps in image format	Impact assessment & cascading effects	Hazard and risk maps were generated from the integrated flooding-electrical simulations in Barcelona and Bristol cities. The Maps indicates the locations with hazard potential, level of risk, and the estimated cost quantification of these risks for different return periods and scenarios provided in the flooding models.
Integrated flooding – electrical simulations Bristol			x	Tabulated results	Impact assessment & cascading effects	Tabulated global results generated from the integrated flooding-electrical simulations in Barcelona and Bristol cities. This provides additional information about hazard potential, level of risk, and the estimated cost quantification of these risks for different return periods and scenarios provided in the flooding models.
Impact quantification indices in the electrical network	x	x	x	Publication	Impact assessment & cascading effects	GIS-based methodology designed for the assessment of electrical substations and distribution centres in case of extreme flooding events and extensible to other climate extreme events such as earthquakes, heat waves, and extreme windstorms if electric poles are also included into the assessment. This methodology has been thoroughly explained in *"Electrical Grid Risk*

						Assessment Against Flooding in Barcelona and Bristol Cities" paper.
Flood Risk Assessment tool for electrical assets	x		x	Tool	Impact assessment & cascading effects	This tool seeks to help with the strategic planning and future operational decisions oriented to prevent possible problems caused by extreme flooding events in the electrical network through the risk assessment and major risk identification on electrical assets, the estimation of associated costs and reliability indices. The tool has been developed on the open-source GIS platform QGIS, building on FEMA fragility curves and the methodology presented in "Electrical Grid Risk Assessment Against Flooding in Barcelona and Bristol Cities" paper.
Flood direct damage assessments	x	x	x	Dataset	Impact assessment & cascading effects	The Direct Damage Assessment data for the Bristol case study is derived via the analysing water depths that are in contact with buildings to estimate the damages based on the building use and the associated depth-damage relationship. The functions for Bristol are obtained from the Multi-colour Manual (MCM). The MCM contains information derived from historical insurance data that relates damage estimates to properties based on surrounding flood depth and said properties land use classification. The dataset herein presented outlines the aggregated damages to flooded buildings based on their exposure to flood waters and their respective depth-damage curves.
Assessment of city resilience in Barcelona	x			Publication	Holistic resilience assessment & management	This video presents the main steps of RESCCUE methodology application in Lisbon Research Site. From the identification of resilience-related goals, key stakeholders to engage and critical services and infrastructures to include in the analysis; to the study of interdependencies and consequent cascade effects triggered by a climate-related disruptive even, in the case, rainfall induced floods. In Lisbon, 19 services from 7 sectors were considered, including 146 infrastructures. Data collection was performed through a set of 13 meetings, at the service operational level, and 5 local workshops, at strategic and steering levels, involving all the key stakeholders.

Tool and database for the selection of adaptation strategies	x	x	x	Tool and dataset	Resilience & adaptation strategies for the market uptake	A prioritization methodology has been developed to rank the proposed climate adaptation measures. This methodology will assist to decision makers to select the most efficient measures in terms of both their costs and the degree of risk reduction that they can guarantee. Besides, the methodology has been integrated into a web-based platform that will assist the decision makers to conduct the process of prioritization. The platform includes an extensive database of adaptation measures gathered by the different project partners based on their experience in the three cities that act as case studies in the project (Barcelona, Bristol and Lisbon)
Framework for cities resilience assessment	x	x	x	Methodology	Water-focused city resilience roadmap	RESCCUE RAF is a framework that provides a structured system for urban resilience assessment to climate change, considering four dimensions: organisational integrating top-down governance relations and urban population involvement; spatial referring to urban space and environment; functional regarding strategic services' resilience and physical looking at infrastructures' resilience. It is objective-driven enabling to assess the development level of city resilience, considering strategic services and interdependencies contributions to city resilience. Services included are water supply, wastewater, storm water and waste management, electrical energy and mobility. Its main purpose is to support decision in the development of resilience action plans and assess progress.
Framework for the Resilience Action Plan	x	x	x	Methodology	Water-focused city resilience roadmap	It is an approach that provides a planning process by defining the main steps to follow to develop resilience action plans, It includes the information needed to produce an action plan for enhancing resilience of any city, based on the work already existing in the city, the definition of climatic scenarios, characterization of the context and hazards, risk and resilience assessment and development of strategies to be implemented to improve resilience.

RESCCUE Assessment Framework tool for application	x	x	x	Tool	Water-focused city resilience roadmap	RESCCUE RAF-APP is a tool to facilitate undertaking a structured urban resilience assessment to climate change providing easy visualization of results through graphical representation. The tool enables assessing the development level of city resilience, considering strategic services and interdependencies contributions to city resilience. Services included are water supply, wastewater, storm water and waste management, energy distribution and mobility. It also supports to assess resilience development level of the service. This allows identifying the main strengths and weaknesses in the city and services. Its main purpose is to support decision in the development of resilience action plans and assess progress.
Resilience Action Plan of Barcelona	x			Publication	Water-focused city resilience roadmap	It is a document containing the resilience action plan for each city defining the roadmap for resilience enhancement, to climate change with focus on water. It includes the information on the work already existing in the city, definition of climatic scenarios, characterization of the context, and hazards, risk and resilience assessment, description and implementation planning of strategies to be implemented to improve resilience. It is a thematic plan that can contribute to the city's global resilience plan and it was built based on RESCCUE's template and guidelines and on the results obtained, using the tools and approaches developed in RESCCUE.
Resilience Action Plan of Bristol			x	Publication	Water-focused city resilience roadmap	
Resilience Action Plan of Lisbon		x		Publication	Water-focused city resilience roadmap	
RAP templates & guidelines	x	x	x	Publication	Water-focused city resilience roadmap	These documents support the development by any city of their resilience action plans. A template with guidance to write a Resilience Action Plan (RAP) is provided, regarding climate change, with focus on the water cycle. The city may complete or adapt the template suggestions to fit better its own context and expectations for this document.

RESCCUE Guidelines

During the last stages of the project, the main objective in terms of communication and dissemination has been the promotion of the widest application of the RESCCUE tools and methodologies in other cities. In this regard, the RESCCUE Guidelines and the RESCCUE Toolkit are key to meet this goal.

Several guidelines on the different RESCCUE Work Packages (WP) have been developed aiming at providing the end-users with its most relevant outputs. The RESCCUE guidelines are included in the RESCCUE toolkit. In this sense, the main objectives of the RESCCUE guidelines are:

- Summarise the RESCCUE approach, development and results in an easy-to-understand and appealing way.
- Explain how to use RESCCUE outputs to improve your city's resilience.
- Offer expert contact info

These materials, which are available both printed and online, synthesize the key outputs of each stage of the project in an attractive and easy-to-understand format and serve to present a roadmap on how to apply the RESCCUE methodology in different cities. The pack of 6 guidelines is described below:

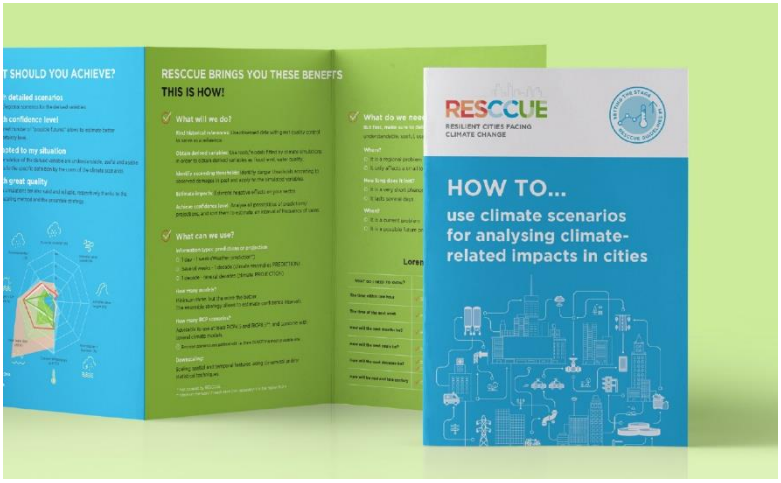


Figure 4 Mockup of RESCCUE guidelines #1

- **How to use climate scenarios for analysing climate-related impacts in cities:** The creation of climate change scenarios, according to different climate variables, facilitates the implementation of adaptation measures as well as reduces the level of uncertainly.

- **How to analyse the behavior of critical urban services under climate pressures:** Testing different methodologies in order to develop multiple hazard assessment for strategic urban services and infrastructure provides deep knowledge about the behavior of urban services under extreme climate conditions.

- **How to estimate direct, indirect and subsequent cascading impacts from climate driven hazards:** The failure of services due to climate driven hazards may trigger further impacts and disruptions to other services, known as

cascading effects. Within RESCCUE, the potential impacts on critical infrastructures and services as a result of climate driven hazards were selected to be assessed in the cities of Barcelona, Bristol and Lisbon for both current and future climate scenarios.

- **How to globally analyse, diagnose and manage urban resilience with a holistic approach:** With a holistic resilience approach, the city vulnerabilities can be identified, together with its critical infrastructures and key relationships among critical services, allowing to understand the existing interdependences.

- **How to effectively prioritise adaptation strategies to enhance urban resilience:** Cities must adapt to increasing climate impacts, by setting an adaptation strategy based on the context, on its resources and necessities, of each city.

- **How to develop and implement a Resilience Action Plan (RAP) in your city:** Water-related risks may be aggravated by climate change and eventually condition the correct functioning of the city. The Resilience Action Plan finds the best responses for those gaps.

RESCCUE video

The RESCCUE final video is a short animation film that summarises the project's approach, objectives and outcomes in an easy-to-understand-way, as it is addressed to potential-end users (technical and non-technical) and general audiences.

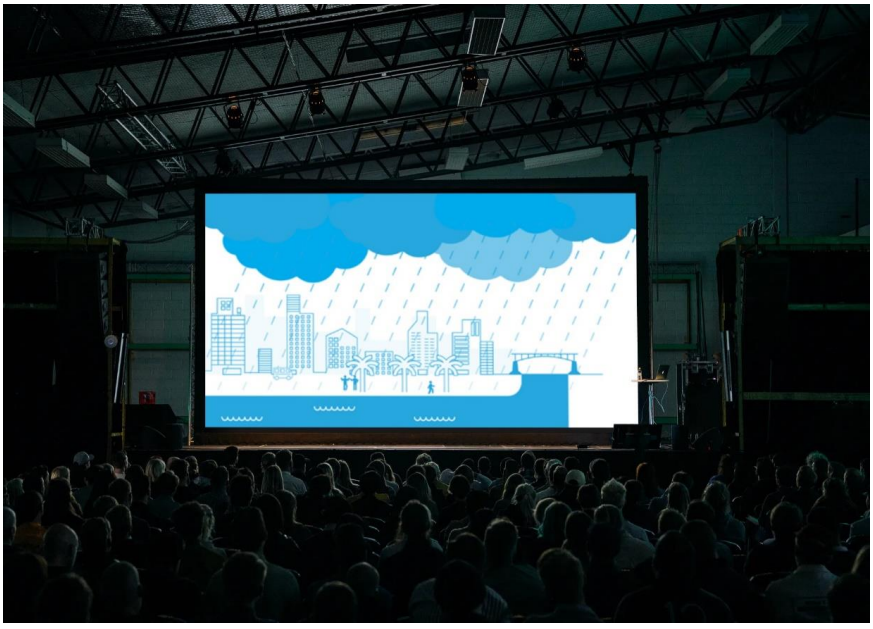


Figure 5 Mockup of the RESCCUE video being played in a theatre

The main objective of the RESCCUE video is to raise awareness on the role of urban resilience against climate change impacts and foster replicability.

Figure 6 Screenshots from the RESCCUE video

RESCCUE e-book

The RESCCUE e-book, developed in the framework of WP6 (*Figure 7*) is an interactive online document that gathers the main lessons learnt and results from the RESCCUE project. This material is addressed to potential end-users and general audiences and aims to foster replicability of the project's results.

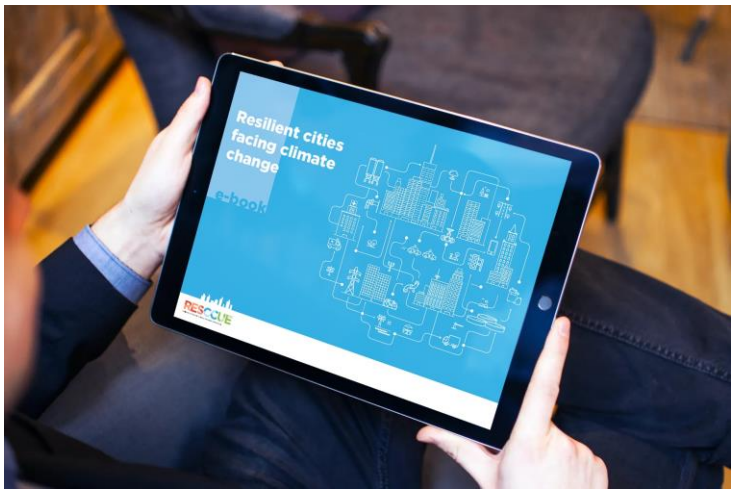


Figure 7 Mockup of the RESCCUE e-book being read in a tablet

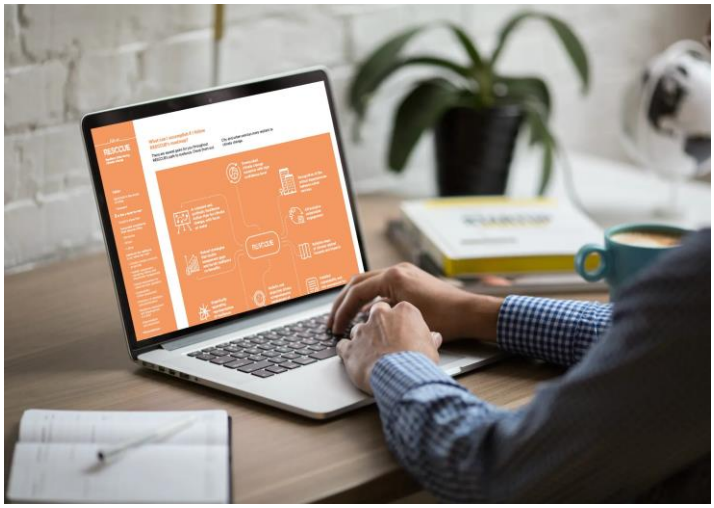


Figure 8 Mockup of the RESCCUE e-book being read in a computer

4.3.6.3.1.1 Specific dissemination actions to foster replicability

Specific dissemination actions have been planned to spread the project's results and reach the target audiences after the end of the project:

1. Article **"Building resilience to climate change":** This article, published in **CORDIS website**, offers a general overview of the RESCCUE project's objectives, approach and results. It completes the RESCCUE factsheet in this website managed by the European Commission.

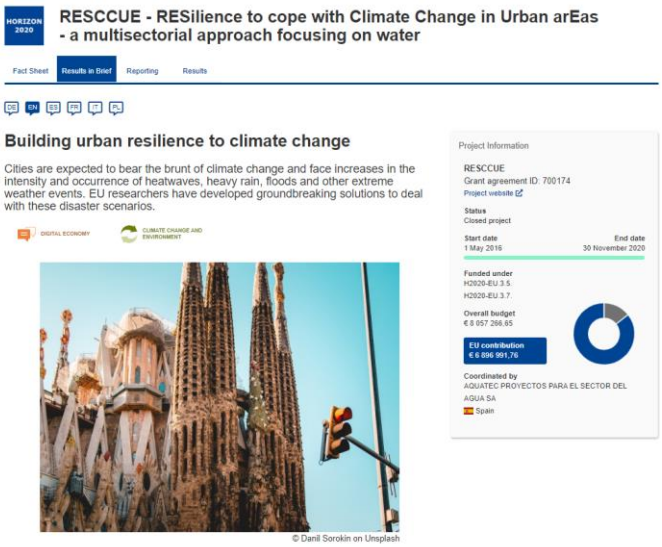


Figure 9. Screenshot of RESCCUE article on CORDIS website

2. Article: **"**[How to make your city more resilient with RESCCUE?"](): In order to ease the application of he RESCCUE outputs in other cities, a set of materials, described above, are gathered in this article. The objective of this publication is to explain how to use these materials, so that any city manager can use RESCCUE to make their city more resilient by using its tools and methodologies. This article will be shared with European platforms, such as Covenant of Mayors, Climate Adapt or Disaster Risk Management Knowledge Centre (DRMKC), where some of the most relevant target groups of the project will be reached.

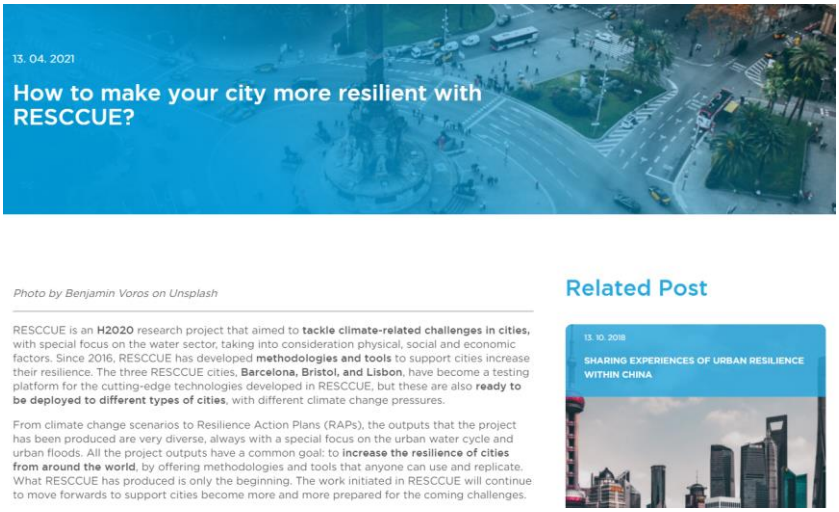


Figure 10 Screenshot of RESCCUE's replicability article in the RESCCUE Toolkit

3. Participation in **European Climate Change Adaptation conference (ECCA) 2021**: This year a new edition of the European Conference on Climate Change Adaptation will take place. It will be organised by JPI Climate and several H2020 projects as a virtual event and will include 9 topic webinars and one High-Level Forum event. In this sense, RESCCUE has been proposed to be featured in the ECCA 2021 e-library, a space to showcase climate adaptation projects that will be promoted through the event's website during some time, particularly to investors and other stakeholders.

4. **Other actions**
    a. **Participation in events and conferences:** RESCCUE will continue to be presented in different events and conferences through the participation of its partners.
    b. **Publication of articles:** RESCCUE will also be mentioned in different articles published by the project partners both in general and technical media.

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. This plan has been taken into account throughout the lifetime of the project. The content of the following table was previously included in the Contingency Plan of the deliverable D8.3.

Table 11 Description of risks and contingency measures taken from the Contingency Plan 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.

Description of risk	Proposed risk-mitigation measures	Contingency Plan
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 informed about the project their city forms part as well as about its potential benefits.	In case of lack of local-level communication activities, WP7 will seek support from the City Councils in order to implement the most 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.	In case of decreasing website visits, 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 contents (related external news and links, funny facts, etc) which could interest wider audience.
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 k ey 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.

Table 13 Description of the background of the RESCCUE partners

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

UNIEXE	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.

	-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 - Resilience and Climate Change Adaptation Plan "Estratégia Municipal de Adaptação às Alterações Climática" - Master Plan of Lisboa (2012) - U-SCORE project report - Lisbon's Resilience Action Plan Report	Just for use in the framework of RESCCUE project under CML permission	Just for use in the framework of RESCCUE project under CML permission
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 case study - Software platform Aquasafe for collection of on-line data from flow meters and rain meters, and weather, sewage and Tagus estuary model integration of Lisbon case study - Data from flow and rain meters of Lisbon case study	The access to the on-line data of flow and rain meters of Lisbon case study from Águas de Portugal and third party EPAL is restricted to the project Resccue period	The access to the on-line data of flow and rain meters of Lisbon case study from Águas de Portugal and third party EPAL is 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 11.

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[2]. 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[3].

[2]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.

[3] Mitchell, T. and Aalst, M., 2008 Convergence of Disaster Risk Reduction and Climate Change Adaptation. A review for DFID. London.

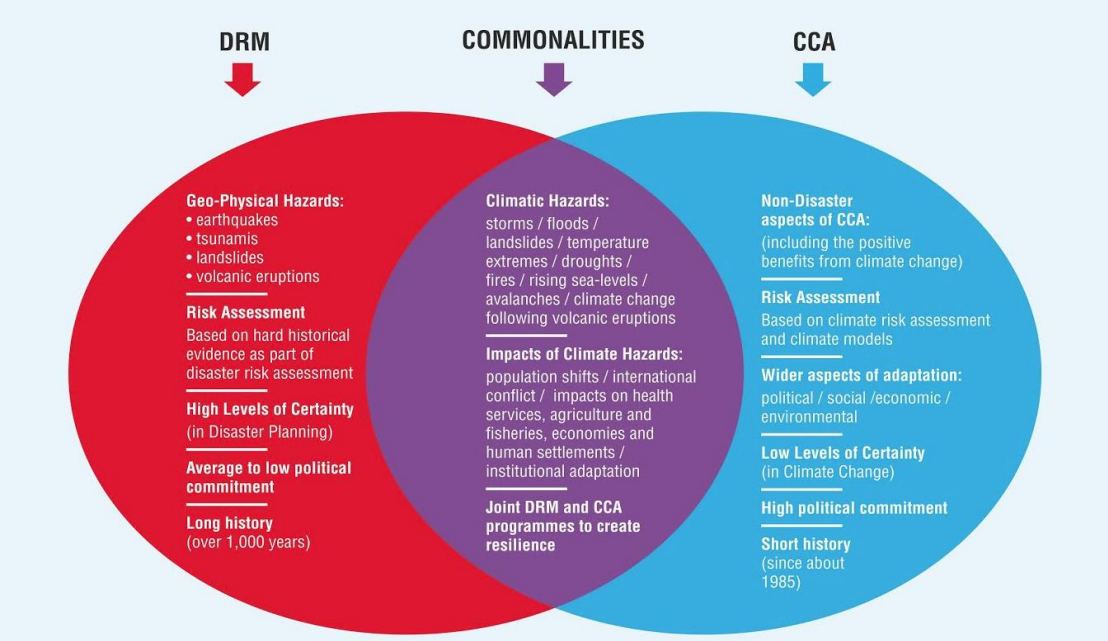


Figure 11 Differences and commonalities of Disaster Risk Reduction (or Management - DRM) and Climate Change Adaptation. Source: Ian Davis via PLACARD Project

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 12).

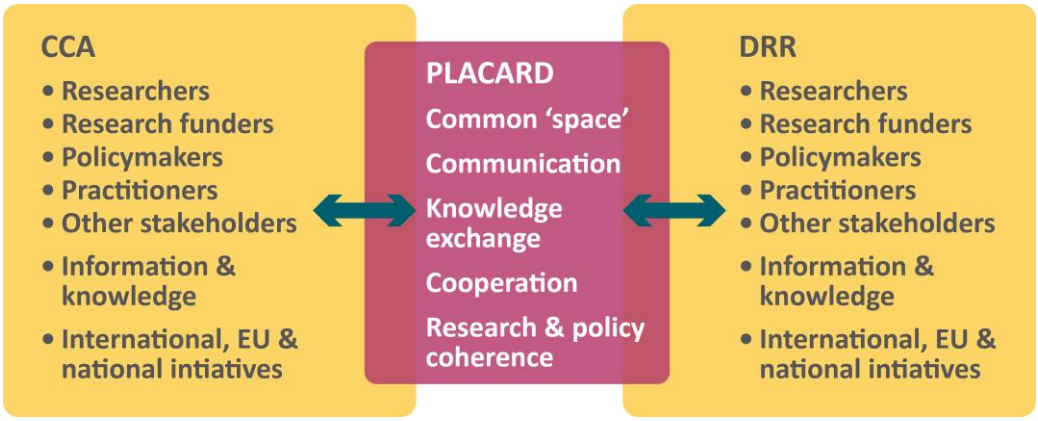


Figure 12 Goals of the PLACARD Project, bridging the gap between the CAA and DRR communities.

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[4] (Figure 13). 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[5]. 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.

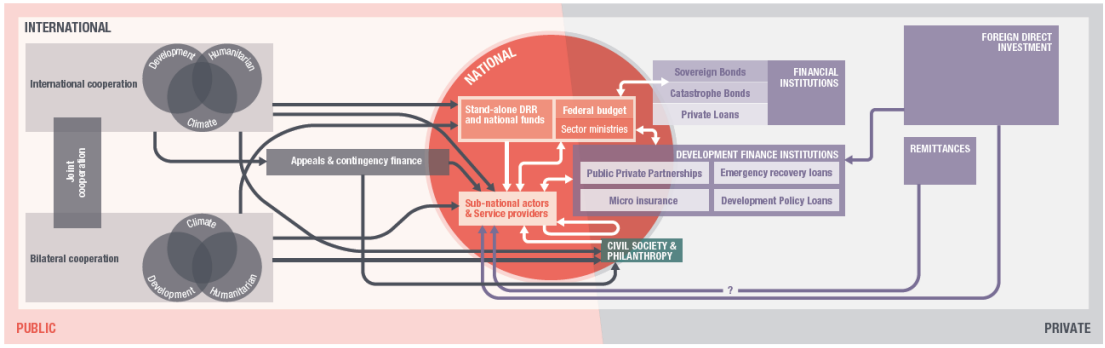


Figure 13 Scheme presenting the complexity of DRR funding schemes. Source: UNDP, ODI, 2015.

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.

[4] Finance for reducing disaster risk: 10 things to know, 2015 Overseas Development Institute, Climate & Environment Programme, UNDP. UK.
[5] 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[6]. 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.

[6] 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.

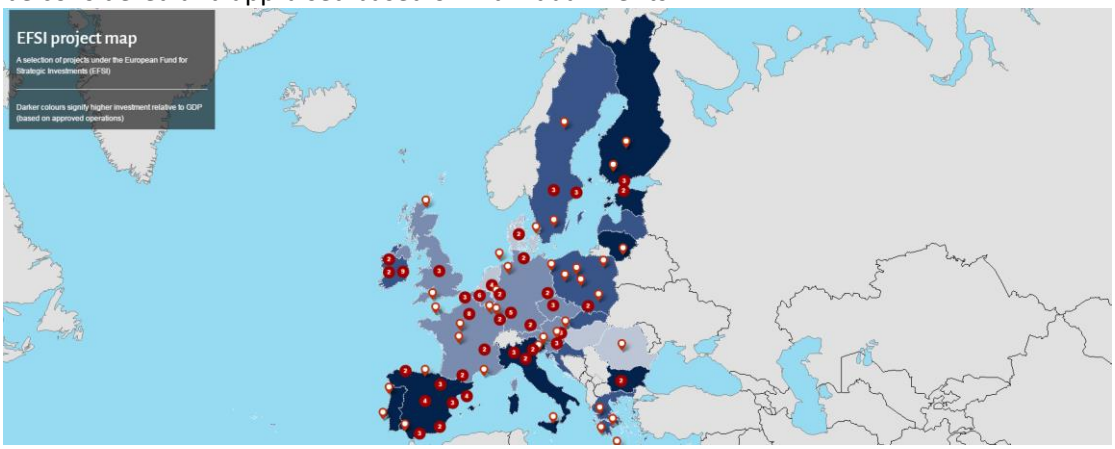


Figure 14 Map of the EFSI funded projects since 2015 the launch of the programme (as of 15/06/17).

The investment plan is already showing results with various projects across sectors and countries. Over 250 investment projects have been financed over Europe (Figure 14), which imply an investment of 39 billion €, and have a related total investment related to EFSI of 209 billion € (Figure 15). More information and details of all this can be found the EIB website, on the EFSI section: http://www.eib.org/efsi/

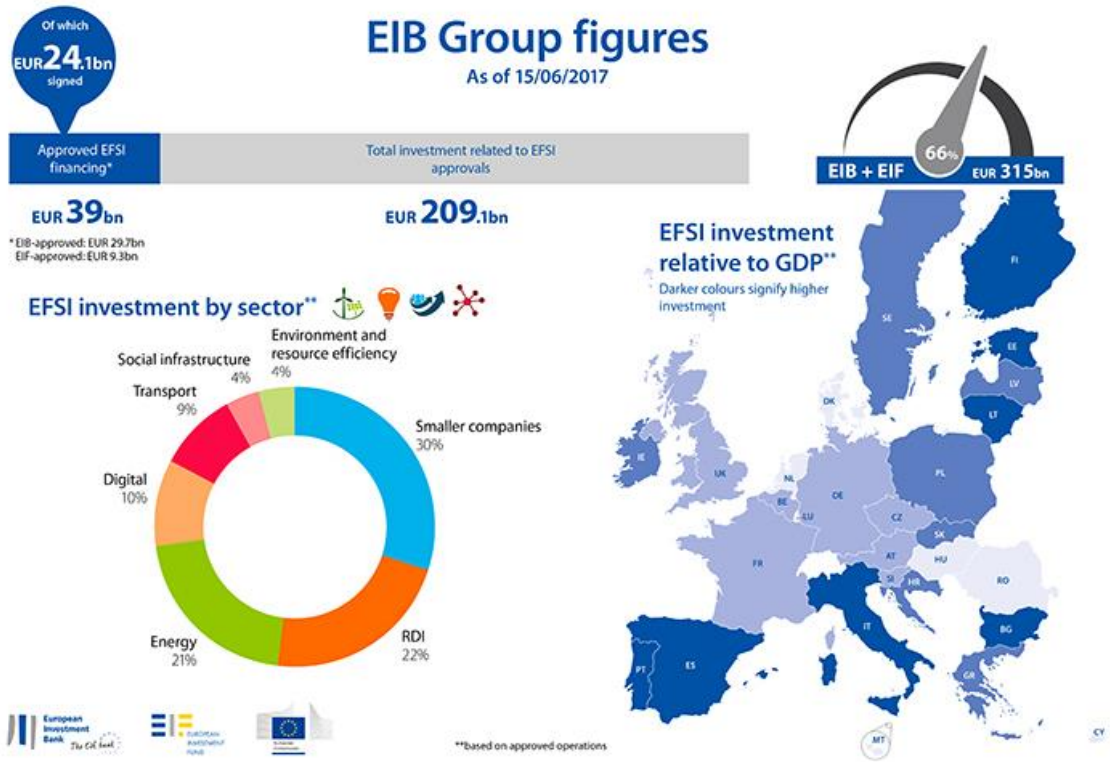


Figure 15 Summary of the EFSI investments since it was launched (as of 15/06/17).

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[7].

On the EC open data portal[8] 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 16.

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: https://cohesiondata.ec.europa.eu/countries/ES, 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.

[7] https://ec.europa.eu/info/funding-tenders/european-structural-and-investment-funds
[8] https://cohesiondata.ec.europa.eu/

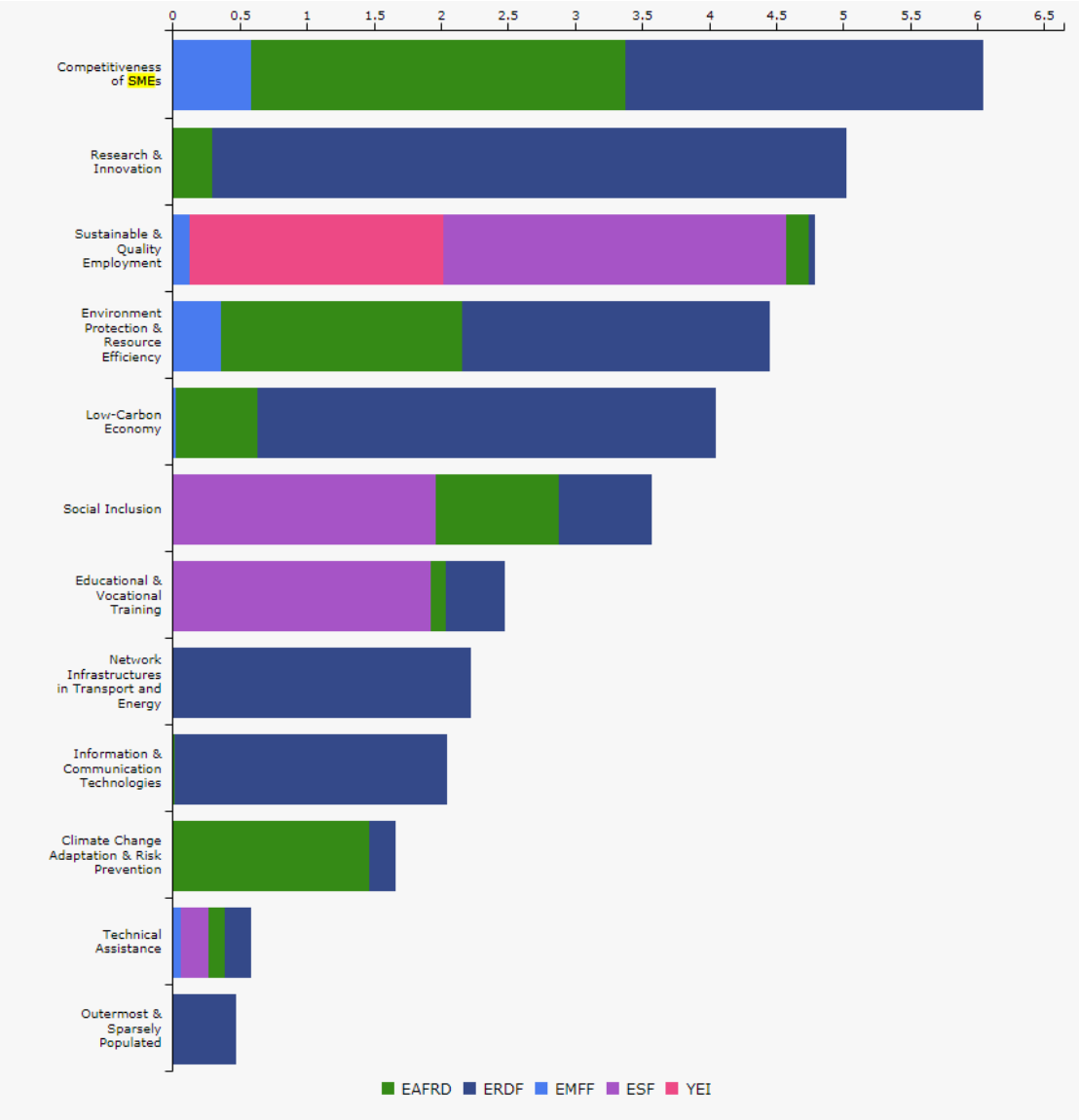


Figure 16 Summary of Spanish ESIF funds by Theme (in billion €)

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[9], 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"[10], 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[11]. However, given the fact that in many cases the majority of the expected results are available towards the end of the project

[9] 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.
[10] European IPR Helpdesk 2015 Fact Sheet: The Plan for the Exploitation and Dissemination of Results in Horizon 2020
[11] 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. [12]

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[13]:

(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.

[12] European IPR Helpdesk 2015 Fact Sheet: Exploitation channels for public research results
[13] 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.

5.5 Long-term strategy for exploitation of project results

In section 6, the several specific dissemination and exploitation actions that have to be followed during the project are presented. These specific actions presented later are only focusing on the period that the project is still on-going.

However, as presented before, the H2020 requests that beneficiaries must exploit the project results up to four years after the project completion. Again, the four main ways to exploit the project results via different channels, mainly focus on the following activities:

(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.

In order to keep track of these activities after the end of the project, the main exploitable results and their owners are identified, together with the key contact person to report on the corresponding exploitation actions (Table 14).

Table 14 List of the exploitable results and the roles of the people responsible for their exploitation.

Owner	Exploitation responsible	WP	Results
FIC	Robert Monjo	WP1	1-Met 3-Met 5-Met
Cetaqua	Eduardo Martinez-Gomariz	WP2 WP3 WP5	6-Mod 38-Met 51-Tool

Aquatec	Beniamino Russo	WP2 WP3	8-Mod 10-Mod 35-Tool 40-Mod
IREC	Jose Luis Dominguez	WP2 WP3	14-Mod 31-Met 33-Met 34-Met
Hidra	Jose Saldanha Matos	WP2	18-Mod
EDP	Ines Candido Silva	WP2	20-Mod
BCC	John Stevens	WP2	24-Mod 26-Mod
University of Exeter	Barry Evans	WP2 WP3	28-Mod 42-Met
Wessex Water	Rob Henderson	WP2	30-Mod
LNEC	Maria Adriana Cardoso	WP6	55-Tool

On a regular basis, these "exploitation responsible" will be contacted by the RESCCUE Exploitation Manager (Montse Martínez – Aquatec) in order to report on the current status of the several project results. The calendar of these reportings is listed below:

- 2021 Semester 1
- 2021 Semester 2
- 2022 Semester 1
- 2022 Semester 2
- 2023 By the end of the year
- 2024 By the end of the year

The outcomes of these follow-up will be summarized and included on the RESCCUE website, in the exploitation section (https://toolkit.resccue.eu/exploitation).

6 Dissemination and exploitation actions

Once the different results of the RESCCUE project were identified in Table 1 and taking into account the dissemination and exploitation plan being defined, a set of datasheets was 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.

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 D8.6 Data Management Plan (final version).

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 have been 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 were defined and carried out

These actions were defined and carried out 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:
    - Description
    - Target
    - Planning
    - Responsible

The different dissemination and exploitation datasheets describing the dissemination and exploitation carried out throughout the lifetime of the project have been classified per result and per WP as follows.

Regarding the exploitation of the models, the following models (sorted by code, see **Table 1 Analysis of the results of the RESCCUE Project**) could be used for the development / updating of sectorial master plan of the urban service and the holistic resilience action plan:

- 6-Mod
- 8-Mod
- 10-Mod
- 14-Mod
- 16-Mod
- 18-Mod
- 20-Mod
- 24-Mod
- 26-Mod
- 28-Mod
- 30-Mod
- 40-Mod

WP1

Result	FIC climate statistical downscaling method			Type	Methodology
Owner	FIC	WP	1	CODE	1-Met

Action	Description	Target	Planning	Responsible
Definition of a service/product	Service/product based on a methodology of climate statistical downscaling created 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
Guidelines	Guidelines "How to use climate scenarios for analysing climate-related impacts in cities"	City managers, Engineering companies	M33	FIC Aquatec Cetaqua
Networking	Presentation of the methodology in EIT Climate-KIC networking – Valencia and Malaga	City managers, Engineering companies	M24 and M29	FIC
Networking	Presentation of the methodology in Copernicus - Berlin	Policy makers, Engineering companies	M29	FIC
Data available in Zenodo	Upload of available data to Zenodo	City managers, Engineering companies, Scientific Community	M48	FIC
Dissemination to city councils	Dissemination of communication docs and talks	City councils	M48	FIC

Result	Seasonal-to-decadal downscaled simulations			Type	Dataset
Owner	FIC	WP	1	CODE	2-Data

Action	Description	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-congress	City managers, Engineering companies	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

Data available in Zenodo	Upload of decadal simulation available to Zenodo	City managers, Engineering companies, Scientific Community	M48	FIC

Result	**Extreme rainfall development methodology**			**Type**	**Methodology**	
Owner	**FIC, Aquatec**	**WP**	**1**	**CODE**	**3-Met**	
Action	**Description**		**Target**		**Planning**	**Responsible**
Guidelines	Visual guidelines about generation and use of extreme rainfall scenarios (possibly jointly with the above Guidelines).		City managers Engineering companies		M31	FIC Aquatec
Paper	Combining analogue and stochastic methods to obtain future scenarios of extreme sub-daily precipitation for urban drainage planning. The paper will include expected changes in the IDF curves for the RESCCUE cities.		Engineering companies		M41	FIC Aquatec
Definition of a service/product	Service/product based on a combined methodology developed by FIC and Aquatec for simulating sub-daily rainfall extreme events, which could be sold as a climate service to the several end users. Available at Clarity Platform		-City managers -Utility managers		M36	FIC
Dissemination of the methodology	Guidelines for the development, interpretation and use of the statistical downscaling method		-City managers -Utility managers		M36	FIC
Dissemination of the implementation of the methodology	Paper		-Scientific and technical community		M56	FIC

Result	**Climatic change scenarios of extreme events**			**Type**	Dataset	
Owner	FIC, Aquatec	**WP**	1	**CODE**	**4-Data**	
Action	**Description**		**Target**		**Planning**	**Responsible**
Blog article	Blog article “Projections Of Extremes For Barcelona, Bristol		General public		M27	FIC

	And Lisbon: Are We Ready?" published in the RESCCUE website			
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 scenarios (possibly jointly with the above Guidelines).	City managers Engineering companies	M31	FIC Aquatec
Data available in Zenodo	Upload of available data to Zenodo	City managers, Engineering companies, Scientific Community	M48	FIC

Result	**Seasonal-to-decadal downscaled method**			**Type**	Methodology
Owner	FIC	**WP**	1	**CODE**	**5-Met**
Action	**Description**		**Target**	**Planning**	**Responsible**
Paper	Upper-Level Mediterranean Oscillation index and seasonal variability of rainfall and temperature		Engineering 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	M40	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
Dissemination of the methodology	Guidelines for the development, interpretation and use of local climate scenarios		-City managers -Utility managers	M36	FIC

Dissemination of the implementation of the methodology	Paper	-Scientific and technical community	M42	FIC

WP2

Result	**Urban drainage model in Barcelona**			**Type**	Model
Owner	Aquatec, BCASA	**WP**	2	**CODE**	**8-Mod**

Action	**Description**	**Target**	**Planning**	**Responsible**
Guidelines	Guidelines "How to analyse the behaviour of critical urban services under climate pressures"	City managers Utility mangers	M45	Aquatec Cetaqua BCASA IREC Barcelona CC Hidra Lisbon CC EDP Bristol CC University of Exeter Wessex Water
Presentation	Presentation at JIA Conference	City managers Utility mangers	M42	Aquatec

Result	**Urban drainage simulations in Barcelona**			**Type**	Dataset
Owner	Aquatec, BCASA	WP	2	**CODE**	**9-Data**

Action	**Description**	**Target**	**Planning**	**Responsible**
Blog article	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
Presentation	Presentation at JIA Conference	City managers Utility mangers	M42	Aquatec
Blog article	Blog article published in the RESCCUE website	General public	M42	Aquatec
Scientific paper	A scientific paper on climate change impacts on urban drainage in Barcelona will be submitted. Integrated with the	Scientific community	M45	Aquatec

	paper describing the methodology.			

Result	**Marine model for quality prediction in Barcelona**			**Type**	Model	
Owner	Aquatec	**WP**	2	**CODE**	**10-Mod**	
Action		**Description**		**Target**	**Planning**	**Responsible**
Guidelines		Guidelines "How to analyse the behaviour of critical urban services 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
Blog article		Blog article published in the RESCCUE website		General public	M42	Aquatec

Result	Assessment of marine model impacts			**Type**	Dataset	
Owner	Aquatec	**WP**	2	**CODE**	**11-Data**	
Action		**Description**		**Target**	**Planning**	**Responsible**
Scientific paper		A scientific paper on climate change impacts on marine environments.		Scientific community	M42	Aquatec

Result	**Bursting pipes in Barcelona**			**Type**	Methodology	
Owner	Aquatec	**WP**	2	**CODE**	**12-Met**	
Action		**Description**		**Target**	**Planning**	**Responsible**
Guidelines		Guidelines "How to analyse the behaviour of critical urban services 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	**Urban drainage and flooding model**			**Type**	Model
Owner	Hidra	**WP**	2	**CODE**	**18-Mod**

Action	**Description**	**Target**	**Planning**	**Responsible**
RESCCUE Blog article	The importance of models on adding know-how to cascading effects determination	Water sector	M23	Hidra
Journal publication	Dissemination of methodology for hazard assessment	Water sector/Scientific Community	M37	LNEC, Hidra, CML

Result	**Integrated tool linking meteorological platform and traffic system**			**Type**	Tool
Owner	CML	**WP**	2	**CODE**	**22-Tool**

Action	**Description**	**Target**	**Planning**	**Responsible**
Presentation on conference (ECCA 2019)	Methodology and main results concerning the mobility/flooding model for Lisbon	General public	M37	Hidra, CML and NEC

Result	Integrated flooding – traffic model in Bristol			**Type**	Model
Owner	University of Exeter	WP	2	**CODE**	**28-Mod**

Action	**Description**	**Target**	**Planning**	**Responsible**
Guidelines	Guidelines for the development of an Open Source traffic model for the city of Bristol based on available data that can provide insight into the impacts of flood based events on the transportation network and its potential implications on other services.	City managers Utility mangers	M35	University of Exeter BCC
Journal publication	Journal publication in Sustainability on Traffic Modelling. Additional details in D3.4	City managers Utility mangers Scientific Community	M55	University of Eceter BCC

Result	Integrated flooding- traffic simulations in Bristol			Type	Dataset
Owner	University of Exeter	WP	2	CODE	29-Data

Action	Description	Target	Planning	Responsible
Journal publication	Journal publication in Sustainability on Traffic Modelling. Additional details in D3.4	City managers Utility mangers Scientific Community	M55	University of Eceter BCC

WP3

Result	Impact quantification indices in the electrical network			Type	Methodology
Owner	IREC	WP	3	CODE	31-Met

Action	Description	Target	Planning	Responsible
Conference presentation	Presentation at ECCA conference	Technical audiences, Scientific community	M36	IREC
Journal publication	Publication in Scientific Journal	Technical audiences, Scientific community		IREC
Journal publication	Publication in Scientific Journal (under review)	Technical audiences, Scientific community	M54	IREC

Result	Self-healing methods for the electrical network			Type	Methodology
Owner	IREC	WP	3	CODE	33-Met

Action	Description	Target	Planning	Responsible
Registration	Registration of the methodology		M55	IREC

Result	Clusterization method for the electrical network			Type	Methodology
Owner	IREC	WP	3	CODE	34-Met

Action	Description	Target	Planning	Responsible
Registration	Registration of the methodology		M55	IREC

Result	Flood direct damages tool-1			Type	Tool
Owner	Cetaqua, Aquatec	WP	3	CODE	35-Tool

Action	Description	Target	Planning	Responsible
Guidelines	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 damages tool-2			Type	Tool
Owner	University of Exeter	WP	3	CODE	36-Tool

Action	Description	Target	Planning	Responsible
Guidelines	Guidelines "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 community	M30	University of Exeter
Journal Publication	Publication about assessing uncertainties present in Direct damage assessment	Scientific community	M33-M44	University of Exeter

Result	Flood direct damage assessments			Type	Dataset
Owner	University of Exeter, Cetaqua, Aquatec	WP	3	CODE	37-Data

Action	Description	Target	Planning	Responsible
Scientific Reports	Reports on the analysis of impacts from climate driven events within the 3 case study areas	City managers Utility mangers Scientific community	M29	Exeter Cetaqua Aquatec

Result	Flood indirect damage methodology	Type	Methodology

Owner	Cetaqua	WP	3	CODE	38-Met	
Action		**Description**		**Target**	**Planning**	**Responsible**

Result	Combined Sewer Overflows (CSO) impact assessment model			Type	Model	
Owner	Aquatec	WP	3	CODE	40-Mod	
Action		**Description**		**Target**	**Planning**	**Responsible**

Result	Assessment of CSO impacts			Type	Dataset	
Owner	Aquatec	WP	3	CODE	41-Data	
Action		**Description**		**Target**	**Planning**	**Responsible**

Result	Transport indirect impact methodology			Type	Methodology	
Owner	Cetaqua, University of Exeter	WP	3	CODE	42-Met	
Action		**Description**		**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 Community City Managers Utility Managers	M33-M44	University of Exeter BCC
Definition of a service/product		Methodology for the analysis and quantification of the impacts of flood event or road closure on transport (mobility) based on the following factors: journey time increase, pollution increase, fuel consumption and public transport disruption.		-City managers -Utility managers (depending on transport) -Local police	M48	University of Exeter
Dissemination of the methodology		Publication of a paper describing such methodology		-Scientific and technical community	M42	University of Exeter

Result	Assessment of transport indirect damages	Type	Dataset

Owner	Cetaqua, University of Exeter	**WP**	3	**CODE**	**43-Data**	
Action		**Description**		**Target**	**Planning**	**Responsible**
Scientific Reports		Reports on the analysis of impacts from climate driven events within the 3 case study areas		City managers Utility mangers Scientific community	M30	University of Exeter, Cetaqua
Journal publication		Journal publication in Sustainability on Traffic Modelling. Additional details in D3.4		City managers Utility mangers Scientific community	M55	University of Exeter, Cetaqua

WP4

Result	**Assessment of city resilience in Barcelona**			**Type**	Publication	
Owner	Aquatec	**WP**	4	**CODE**	**44-Pub**	
Action		**Description**		**Target**	**Planning**	**Responsible**

Result	**Assessment of city resilience in Lisbon**			**Type**	Publication	
Owner	Hidra	**WP**	4	**CODE**	**46-Pub**	
Action		**Description**		**Target**	**Planning**	**Responsible**

Result	**New functionalities of Hazur "Adaptation Strategies" module in Hazur**			**Type**	Software	
Owner	Opticits, Aquatec, Cetaqua	**WP**	4	**CODE**	**47-Soft**	
Action		**Description**		**Target**	**Planning**	**Responsible**

Result	New functionality of HAZUR "Visualisation of Climate Change Scenarios module in Hazur"			**Type**	Software	
Owner	Opticits, Aquatec, FIC	**WP**	4	**CODE**	**48-Soft**	
Action		**Description**		**Target**	**Planning**	**Responsible**

Result	Hazur Assessment Module			Type	Software
Owner	Opticits	WP	4	CODE	49-Soft

Action	Description	Target	Planning	Responsible
Participation in prescription documents, guides, papers, awards courses and studies	• WssTP Awards 2017 • Open Data Infrastructure for City Resilience. A Roadmap Showcase And Guide • Catalogue Acció Generalitat 2017 • Catalogue Diputació de Barcelona 2017 • Presentation Dubai Awards UN Habitat • Elaboration of a Municipal Guide for Resilience - Engineering Association Barcelona • Publication in the BRIGAID Climate Change Innovators web • 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) • Participation in academic papers (See details in other section)	Cities, private sector, investors and multilaterals	M1-M30	Opticits

Result	Hazur Manager Module			Type	Software
Owner	Opticits	WP	4	CODE	50-Soft

Action	Description	Target	Planning	Responsible

Result	- New functionalities of Hazur "Adaptation Strategies" module in Hazur - New functionality of HAZUR"Visualisation of Climate Change Scenarios module in Hazur" - Hazur Manager Module			Type	Software
Owner	Opticits	WP	4	CODE	47-Soft 48-Soft

					50-Soft
Action	**Description**		**Target**	**Planning**	**Responsible**

WP5

Result	**Database and tool for the selection of adaptation strategies**			**Type**	Tool and dataset
Owner	Cetaqua	**WP**	5	**CODE**	**51-Tool**

Action	**Description**	**Target**	**Planning**	**Responsible**
Blog article	Blog article "Adaptation strategies: a must for resilient cities" published in the RESCCUE website	General public	M28	Cetaqua
Abstract submission	An abstract entitled "The RESCCUE approach for the effectiveness assessment of climate-related adaptation strategies in urban areas" was presented for the European Climate Adaptation Conference 2019.	EU policy makers City managers	M36	Cetaqua
Web-based platform	New web-based platform to assist decision-makers to prioritise climate adaptation options	EU policy makers City managers	M55	Cetaqua
Website dissemination	Link to the website tool in the RESCCUE website	General public	M42	Cetaqua

Result	**Methodology for the selection of resilience strategies**			**Type**	Methodology
Owner	Cetaqua	**WP**	5	**CODE**	**52-Met**

Action	**Description**	**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 managers	M41	Cetaqua, Aquatec
Publication	Publication in Sustainability Journal	- Scientific and technical community		Cetaqua

Presentation	Presentation at URCC conferencd	- Scientific and technical community	M55	Cetaqua

WP6

Result	**Framework for cities resilience diagnosis**			**Type**	Methodology	
Owner	LNEC UN-Habitat	**WP**	6	**CODE**	**53-Met**	
Action		**Description**	**Target**		**Planning**	**Responsible**
Dissemination of the methodology		Publication of a report describing the methodology and framework, its implementation procedure and of a tool to facilitate application.	- City managers -Service managers		M48	LNEC UN-Habitat
Dissemination of the methodology and of its application through diagnosis results		Publication of a paper describing the methodology and its application at XVI SEREA	-Scientific and technical community		M42	LNEC UN-Habitat
Dissemination (paper)		8th ICBR 2018 “Assessing contribution of climate change adaptation measures to build resilience in urban areas”. Application to Lisbon.			M31	LNEC, CML
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
Oral presentation		ECCA - framework	City and services managers, scientific community		M37	LNEC
Oral presentation		ECCA – Lisbon case	City and services managers, scientific community		M37	LNEC
Dissemination (article)		Scientific journal (Águas & Resíduos)	Scientific community			LNEC
Oral presentation		Paper with oral presentation of the framework development at LESAM 2019	City and services managers, scientific community			LNEC
Oral presentation		Article in scientific journal: Sustainability journal MDPI	City and services managers, scientific community			LNEC

Oral presentation	Article in scientific journal: H2Open Journal, IWA Publishing.	City and services managers, scientific community		LNEC
Oral presentation	Oral presentation at National Civil Protection Authority	City and services managers, scientific community		LNEC
Oral presentation	Oral presentation at Assessing Territorial Resilience: Indicators and Tools for Governance Conference, Paris	City and services managers, scientific community		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
Oral presentation	Short paper with oral presentation of the framework at ICUR 2022	City and services managers, scientific community	June 2022	LNEC

Result	**Framework for the Resilience Action Plan**			**Type**	Methodology	
Owner	LNEC	**WP**	6	**CODE**	**54-Met**	
Action		**Description**	**Target**		**Planning**	**Responsible**
Manual (e-book)		Manual of best practices for the development of Resilience Action Plans	EU policy makers City and services managers, scientific community		M48	LNEC Cetaqua Aquatec
Oral presentation		Abstract and oral presentation at URCC 2020	Urban resilience experts and scientific community		M54	CML LNEC
Document		Templates and guidelines for RAP	City and services managers			CML LNEC
Document		Guidelines for Resilience Action Plans developement	City and services managers			CML LNEC
Article		Article in scientific journal: Sustainability journal MDPI.	Scientific Community			CML LNEC

Result	**RESCCUE Assessment Framework Tool for application**			**Type**	Tool	
Owner	LNEC	WP	6	**CODE**	**55-Tool**	
Action		**Description**	**Target**		**Planning**	**Responsible**
Supporting guide		Guidelines to the RAF Tool use	City and services managers		M31	LNEC
Dissemination		Tool shed at ECCA'19.	City and services managers		M36	LNEC

		Scientific Community		
Dissemination	Uploading RAF APP into the INCD platform for public use.	City and services managers Scientific Community		LNEC
Oral presentation	Oral presentation at IBERGRID 2019.	City and services managers Scientific Community		LNEC
Oral presentation	Paper with oral presentation of the RAF app development at MIPRO 2020	City and services managers Scientific Community		LNEC
Oral presentation	Oral presentation in Lisbon "Urban resilience as a continuous process" workshop.	City and services managers Scientific Community	M42	LNEC

Result	**Resilience Action Plan of Barcelona**			**Type**	Publication
Owner	Barcelona CC, LNEC, UN-Habitat, Aquatec	**WP**	6	**CODE**	**56-Pub**

Action	**Description**	**Target**	**Planning**	**Responsible**
Manual	Barcelona Resilience Action Plan	Barcelona city and services managers	M48	LNEC Cetaqua Aquatec Barcelona CC
Presentation	First developments on Barcelona's RAP were presented in the meeting with Paris Chief Resilience Officer, held in June 2018 in Paris	City managers	M26	Barcelona CC
Presentation	First developments on Barcelona'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)	2 Articles in scientific journal: Sustainability journal (RESCCUE final paper and RAP methodology) MDPI	City and services managers, scientific community	M33-M44	LNEC Cetaqua Aquatec Barcelona CC

Result	**Resilience Action Plan of Bristol**			**Type**	Publication
Owner	Bristol CC, LNEC, UN-Habitat, Aquatec	**WP**	6	**CODE**	**57-Pub**

Action	**Description**	**Target**	**Planning**	**Responsible**

Manual	Bristol Resilience Action Plan	Bristol services managers	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)	2 Articles in scientific journal: Sustainability journal (RESCCUE final paper and RAP methodology) MDPI	City and services managers, scientific community	M33-M44	LNEC Cetaqua Aquatec Bristol CC

Result	**Resilience Action Plan of Lisbon**			**Type**	Publication
Owner	CML, LNEC, UN-Habitat, Aquatec	**WP**	6	**CODE**	**58-Pub**

Action	**Description**	**Target**	**Planning**	**Responsible**
Manual	Lisbon Resilience Action Plan	Lisbon city and services managers	M48	LNEC Cetaqua Aquatec CML
Presentation	First developments on Lisbon's RAP were presented in the meeting with Paris Chief Resilience Officer, held in June 2018 in Paris	City managers	M26	CML
Presentation	First developments on Lisbon'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 (papers)	2 Articles in scientific journal: Sustainability journal (RESCCUE final paper and RAP methodology) MDPI	Urban resilience experts and scientific community	M33-M44	LNEC Cetaqua Aquatec Bristol CC
Workshop	Lisbon workshop "Urban resilience as a continuous process" workshop.	Lisbon city and services managers	M42	CML LNEC
Oral presentation	Oral presentation of the framework in Lisbon "Projeto EU RESCCUE. Desafíos futuros para Lisboa" heatwaves seminar.	Urban resilience experts and scientific community		CML LNEC
Oral presentation	Oral presentation in Lisbon "Urban resilience as a continuous process" workshop	Lisbon city and services managers	M42	CML LNEC

Oral presentation	Abstract and oral presentation at URCC 2020	Urban resilience experts and scientific community	M54	CML LNEC
Oral presentation	Abstract and oral presentation at URCC 2020	Urban resilience experts and scientific community	M54	CML LNEC
Blog article	Blog article (Lisbon Local Workshop)	General audiences	M42	CML LNEC

Result	RESCCUE project (general)			Type	Dissemination
Owner	Lisbon CC, LNEC	WP	6	CODE	59-Dis

Action	Description	Target	Planning	Responsible
Oral presentation	Oral presentation in Lisbon "Urban resilience as a continuous process" workshop	Lisbon city and services managers	M42	Lisbon CC LNEC
Oral presentation	ANEPC: Oral presentation in Lisbon to show the RESCCUE outputs achieved in Lisbon, Resilience and climate change adaptation	Lisbon city and services managers		Lisbon CC LNEC
Oral presentation	Culture Department: Oral presentation in Lisbon to show the RESCCUE outputs achieved in Lisbon, Resilience and climate change adaptation.	Lisbon city and services managers		Lisbon CC LNEC

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

Event	Date	Place
Resilient Regions in Europe: paradigm and practical experiences	June 2016	Bilbao, Spain
Leading Edge Conference on Water and Wastewater Technologies" (LET)	June 2016	Jerez de la Frontera, Spain
Open European Day 2016	July 2016	Bonn, Germany
World Smart City Forum	July 2016	Singapore, Singapore
EurEau and COP22 - Our role in ensuring a resilient water sector	September 2016	Copenhagen, Denmark

Resiliens Tabletop Testing Workshop	October 2016	Lisbon, Portugal
S2R: The Future Safety and Security Research in Europe	October 2016	Bilbao, Spain
DRMKC workshop with FP7 and H2020 projects on critical infrastructure protection	March 2017	Brussels, Belgium
26th UN-Habitat Governing Council	April 2017	Nairobi, Kenya
European Workshop on Resilience in Cities and Communities	April 2017	Berlin, Germany
Brigaid Project Meeting	May 2017	Berlin, Germany
Workshop on "Climate clustering" of the CoU on Secure, Safe and Resilient societies	May 2017	Brussels, Germany
2017 Global Platform for Disaster Risk Reduction (Special session for local governments (23 May) and special session on coherence)	May 2017	Cancun, Mexico
UniExe Workshop - Water Systems Research and Activities	May 2017	Exeter, UK
National Meeting of CUIDAR Project	May 2017	Lisbon, Portugal
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"	June 2017	Glasgow, Scotland

World Circular Economy Forum 2017	June 2017	Helsinki, Finland
LIFE Platform Meeting on Climate Action in Urban Areas	June 2017	Barcelona, Spain
ICUD 2017: International Conference on Urban Drainage, Special session "Critical challenges in flood modelling and risk analysis for cities to develop adaptation strategies that improve the resilience of urban environment to cope with future socio-economic and climate scenarios "	September 2017	Prague, Czech Republic
Porto Water Innovation Week (EIP on Water)	September 2017	Porto, Portugal
JIA (Jornadas de Ingeniería del Agua) 2017	October 2017	A Coruña, Spain
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	Lisbon, Portugal
[Poster] O Caminho da Inovação – Expo & Networking	November 2017	Lisbon, Portugal
Encontro de Quadros da CML | Meeting Staff of CM	November 2017	Lisbon, Portugal
"How to make Lisbon a more resilient city | An opportunity to strengthen communities", organised by CML and EDP	December 2017	Lisbon, Portugal
1st Portuguese Resilient Cities Meeting "From the disclosure to action"	February 2018	Setúbal, Portugal
III Cross border conference on climate and coastal change	March 2018	Irun, Spain
European Civil Protection Forum 2018 | Roundtable "Scaling Up Disaster Prevention: from local to European level"	March 2018	Brussels, Belgium
8th World Water Forum in the Portugal Pavilion	March 2018	Brasilia, Brazil

Symposium STORM, Risk and Heritage in Portugal | Risco e Património em Portugal, Lisboa Resiliente: como prevenir e preparar a cidade	April 2018	Lisbon, Portugal
Meeting Point Lisboa E-Nova. Presentation "Lisbon Resilient city: a strategy to disaster risk reduction"	April 2018	Lisbon, Portugal
International Conference on Renewable Energy (ICREN 2018)	April 2018	Barcelona, Spain
Resilient cities 2018	April 2018	Bonn, Germany
ICGUR 2018 : 20th International Conference on Governance and Urban Resilience	September 2018	Amsterdam, The Netherlands
IWA World Congress	September 2018	Tokyo, Japan
Climate Resilient Cities and Infrastrcutures 2018	October 2018	Brussels, Belgium
BRIGAID Project Meeting	October 2018	Cartagena, Spain
11 Congreso Internacional AEC	October 2018	Cartagena, Spain
Smart City Expo World Congress	November 2018	Barcelona, Spain
8th International Conference on Building Resilience (8th ICBR)	November 2018	Lisbon, Portugal
European Forum on Disaster Risks Reduction	November 2018	Rome, Italy
Barcelona Resilience Week	November 2018	Barcelona, Spain
8th International Conference on Building Resilience "Assessing contribution of climate change adaptation measures to build resilience in urban areas. Application to Lisbon"	November 2018	Lisbon, Portugal
Lisbon Municipal: municipal strategic actors in the scope of the Metropolitan Plan of Adaptation to Climate Change	November 2018	Lisbon, Portugal
FIC CRISI-ADAPT Workshop	December 2018	Lisbon, Portugal
1st Metropolitan Climate Change Adaptation Table	February 2019	Barcelona, Spain
1st Energy Transition and the City Conference (CTEC 2019)	March 2019	Barcelona, Spain
International Symposium on damage estimation methodologies	April 2019	Seoul, Korea

13th Community of users Thematic Workshop	April 2019	Brussels, Belgium
European Climate Change Adaptation Conference (ECCA) 2019	May 2019	Lisbon, Portugal
European Urban Resilience Forum (EURF 2019)	June 2019	Bonn, Germany
LESAM/PI 2019 – IWA Specialist Conference	September 2019	Vancouver, Canada
Bristol local workshop	December 2019	Bristol, England
Urban resilience as a continuous process	January 2020	Lisbon, Portugal
Flood Risk Management in the city of Lisbon	April 2020	Lisbon, Portugal
Nacional and EU Dialogue Allies for Climate	June 2020	Online
ICT4Water Cluster	June 2020	Online
Assessing Territorial Resilience: Indicators and Tools for Governance	July 2020	Online (Paris, France)
Barcelona Climate Emergency Declaration	July 2020	Online
Urban Resilience in a context of Climate Change (URCC)	November 2020	Online
Barcelona local workshop	November 2020	Online