



*CENTAUR: Cost Effective Neural  
Technique for Alleviation of Urban flood  
Risk*

*D4.1 Communication Plan*

Lead Partner: USFD  
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## Acronyms and abbreviations

AC	AC Aguas De Coimbra EM
The Agency	Executive Agency for Small and Medium-sized Enterprises (EASME)
EAWAG	Eidgenossische Anstalt Fuer Wasserversorgung Abwasserreinigung Und Gewaesserschutz
EMS	Environmental Monitoring Solutions
GA	General Assembly
LMCS	Local Monitoring and Control System
Steinhardt	Steinhardt Wassertechnik GmbH
UoC	Universidade de Coimbra
USFD	University of Sheffield
VWOL	Veolia Water Outsourcing Limited
Veolia	Veolia Eau

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## Executive Summary

As an Innovation Action funded by the EU under the Horizon 2020 research and innovation programme, the project partners of CENTAUR were required to promote the project and to communicate and disseminate its results to multiple audiences. These actions were carried out whilst taking due regard to protect commercially sensitive results and confidential information so that the outputs from CENTAUR could then be effectively commercially exploited to deliver the economy benefit and jobs growth envisaged in the original project application. This document focusses on the communication and dissemination activities, some of which are related to exploitation, however a separate Exploitation Plan has been developed and forms a separate confidential document as the Exploitation Plan also outlines the financial arrangements between partners associated with the commercial exploitation of CENTAUR.

This CENTAUR Communications Plan describes the aims and objectives for the project's external communication and dissemination activities, outlines how these have been achieved and also includes important information on considerations which were made by all the partners before a communication activity was completed.

The plan indicates the audiences that the project partners communicated with, how this communication was achieved and the level and type of information that was disseminated. The plan also contains information on the methods that the project partners used to assess the effectiveness of the communication and dissemination activities.

Four different audience groups were identified; water sector end users (industry), academics (scientific community), policy makers, Civil Society and the general public. Each group was examined and their needs for information in order to meet the overall project objectives were identified. These needs ranged from awareness-raising, to the provision of detailed and trusted technical data to generate confidence in the CENTAUR concept and the technical capabilities of the CENTAUR system. Different modes of communication were identified for effective communication with each audience group.

The Communications Plan was updated regularly throughout the project; this final version of the Communications Plan contains a complete record of the communication activities carried out during the project and an assessment of their effectiveness.

# CONTENTS

<b>Executive Summary</b> .....	<b>4</b>
<b>1 Introduction</b> .....	<b>6</b>
1.1 Partners involved in the deliverable .....	6
1.2 Deliverable objective .....	6
1.3 Overview .....	6
<b>2 Communication and dissemination: aims, objectives and stakeholders</b> .....	<b>7</b>
2.1 Identified Audiences and Proposed Modes of Communication .....	8
<b>3 Methods of communication and dissemination</b> .....	<b>13</b>
3.1 Websites.....	13
3.2 Academic papers and conferences.....	13
3.3 Industrial conferences, literature, trade events, workshops and meetings .....	14
3.4 Patenting.....	14
3.5 Social Media .....	15
3.6 Technical and Innovation Events.....	15
<b>4 Record of CENTAUR dissemination and communication</b> .....	<b>17</b>
4.1 Dissemination record .....	17
4.1.1 Published dissemination.....	17
4.1.2 Planned and submitted dissemination .....	19
4.2 Communications Record .....	20
4.2.1 Past communication activities .....	20
4.2.2 Planned communications .....	28
<b>5 Communication considerations</b> .....	<b>29</b>
5.1 Open Access .....	29
5.2 Acknowledgement of EU funding and disclaimer.....	30
5.3 Visual ID of CENTAUR.....	30
5.4 Notification of dissemination .....	31
<b>6 Conclusions</b> .....	<b>33</b>

# 1 Introduction

## 1.1 Partners involved in the deliverable

USFD (Lead), EMS, UoC, Steinhardt, Veolia, EAWAG and AC.

## 1.2 Deliverable objective

A comprehensive communication plan had to be created to provide a strategy to communicate with four key groups; potential end users of CENTAUR, technical specialists (engineers/academic researchers), policy makers and Civil Society including the general public. This plan contains information on the initial analysis and the resulting methods, actions, and responsibilities along with plans for monitoring progress. This deliverable is based on the activities in Task 4.1. Its contents have been periodically reviewed by the partners at the General Assemblies and revised as necessary during project development.

## 1.3 Overview

The aim of this Communication Plan was to formalise and record the external communication and dissemination activities of the project in line with the obligations for promotion of the action and dissemination of results stipulated in the Grant Agreement. The main text of the document outlined the principles adopted by the consortium. The project aimed to deliver an approach in which information for communication was tailored for particular audiences. These audiences were identified in the plan. The different audiences were selected to meet several of the objectives of the project. CENTAUR was an Innovation Action which aimed to develop technology and deliver technical outputs that allowed for the market replication and commercial exploitation of the technology leading to economic and jobs growth. CENTAUR dealt with the area of flood risk management which is a very topical subject as it can impact on the lives of many citizens. This meant that the target audiences for CENTAUR were the (i) water utilities/public bodies and infrastructure organisations, who may adopt CENTAUR to manage flood risk, (ii) technical specialists, who may advise water utilities/public bodies and infrastructure organisations, (iii) policy makers and (iv) the general public who suffer recurrent urban flooding incidents or who have an interest in the provision of flood risk management. This approach has been outlined in this Communication Plan, a separate confidential Exploitation Plan has been produced which sets out additional details relating to proposed the commercial exploitation of the outputs of the CENTAUR project.

The Communication Plan also contains a record of activities. Information is contained in tables in Section 4 which describe the completed communication activities. Undertaken activities were assessed for their effectiveness using metrics. The Communication Plan was revised every 6 months following each General Assembly meeting.

## 2 Communication and dissemination: aims, objectives and stakeholders

CENTAUR was an H2020 Innovation Action, with partners from academic / research institutions, SMEs and end-users; each group of partners having different priorities for communication and dissemination both in terms of content and target audiences. The initial timing of different communication and dissemination activities were determined early in the project as these could only be based on the concepts. Later in the project when there were some tangible outputs such as algorithms and laboratory testing, and later still when results from pilot and demonstration installations were available, was the scope and level of communication and dissemination activity significantly increased. The timing of the available outputs therefore heavily influenced the timing of the communication and dissemination activities.

The key objectives of the CENTAUR communication and dissemination activities were to:

- 1) Communicate new knowledge and techniques with regard to local, autonomous real time control to mitigate urban flood risk.
- 2) Disseminate results from pilot and laboratory installations to demonstrate the technical viability of the CENTAUR concept.
- 3) Disseminate technical outputs so as to build confidence in the academic and end user community of the technical capability of CENTAUR.
- 4) Disseminate the knowledge gained from operating the pilot and demonstration systems to potential end users/purchasers of the CENTAUR technology and communicate to a wider audience, e.g. policy makers and the general public the benefits of local autonomous real time control to manage urban flood risk.
- 5) Develop market awareness for CENTAUR, via targeted communication to support the technology exploited by the commercial partners.

CENTAUR can be installed in combined and/or separate storm-water piped drainage networks. These are very common throughout urban areas in the EU, and these are managed by a number of different types of organisation, e.g. public bodies, private companies on behalf of public bodies, and private companies alone. The performance of these drainage systems can impact on a large number of actors, e.g. members of the public, businesses and property owners hence there are a range of stakeholders that need to be considered.

Often these piped drainage networks are owned by a public body such as a local authority, or a public body that owns drainage infrastructure as part of their function (e.g. railway system). Piped drainage networks can also be owned and managed by a landowner such as a private company. For both types of drainage infrastructure owner, the operation and maintenance of their drainage systems can be wholly or partially contracted out to specialist consultants and contractors. This grouping (owners and their consultants/contractors) is considered as 'water sector end-users' and formed the potential customer base for CENTAUR system, this group is considered to fit in the 'industry'

category for H2020 reporting purposes. Governmental regulatory bodies are often tasked with environmental management and are interested in new technologies to mitigate environmental problems such as flooding; this group is the 'policy makers'. There are also various non-governmental bodies, e.g. pressure groups, with an interest in flood risk mitigation – the 'civil society'. Members of the general public especially those who have experienced urban flooding are also interested stakeholders. Finally the scientific community are interested in the development of the technology and results from testing of the new technology.

While the outputs from CENTAUR were communicated to different audiences, the message and detailed content was varied according to the interests and technical capabilities of the audience. Similarly different audiences were reached through different means of communication. The communication methods used are discussed in further detail in Section 3.

## 2.1 Identified Audiences and Proposed Modes of Communication

### Water Sector End Users (Industry)

For the SME beneficiaries (EMS and Steinhardt) the water sector end users audience were the most important as ultimately they and their staff will specify or directly purchase the CENTAUR system. The technical knowledge of a water sector audience varies, some were interested in the more academic outputs, but in general the key messages for this audience were what CENTAUR does, how well and reliably it works, what the practical considerations are, and perhaps most importantly how much it will cost in terms of capital and operational costs. There were a number of ways to reach this audience, but perhaps the best was direct communication and word-of-mouth via trusted intermediaries. The SMEs had regular contact with their clients and this provided good opportunities to introduce CENTAUR when the project developed. The SMEs were also active in their industry forums such as the CIWEM Urban Drainage Group in the UK. These groups host conferences, workshops and trade events which were a good opportunity to access wider audiences. Other communication methods used included the project website, the SME websites, LinkedIn, Twitter, and more general water sector innovation and trade events, e.g. IFAT in Germany (World Leading Trade Fair for Water, Sewage, Waste and Raw Materials Management). The timing to deliver the message to water sector end users was important, promising too much too early was going to damage the reputation of a technology and so its future sales. The SMEs were keen to introduce the CENTAUR concept slowly until the field sites were operational and producing data, and also for an academic evidence base to be available. Early communications to industry revolved around the CENTAUR concept, when more results and data became available these were incorporated in an accessible way, so as to ensure that the benefits were clear. Once the field testing was underway the practical considerations, such as ease of installation, were communicated, which further increased confidence in the technology within the end user community.

## Scientific community

The universities and research institutes (USFD, UoC, EAWAG) were the beneficiaries most interested in communicating and disseminating to the scientific community as this was key to building both personal and institutional reputations. The key interests of the scientific community are the technical details of new developments, and results from testing and applying these new developments. These included the development of the FL algorithm and genetic algorithm optimisation as well as analysis of results from the laboratory and field sites. A key consideration when disseminating to the academic community from an innovation project is to ensure that the key messages can be conveyed without jeopardising the ability of the SMEs to efficiently commercialise CENTAUR. The academic journal paper is a key dissemination route to the scientific community, papers and presentations at academic conferences are also key communication and dissemination routes. Research Gate can be considered a specialist form of social media for this community, and other communication methods included the project website, Twitter and innovation events. The timing depended on appropriate results being available and the timing of relevant conferences. All academic publications have been made open access. Initially, shorter conference papers and presentations introduced the CENTAUR project to the academic community.

## Policy makers

The messages, areas of interest and methods for communicating with policy makers are on the whole similar to communicating with water sector end users. However, the aim of communicating with policy makers is different. Rather than selling to the policy maker the aim is to affect their future policies, as it is especially important that policy makers do not restrict the use of local RTC. Furthermore, well informed policy makers can often influence water industry end users.

## Civil Society

Civil society are likely to have some technical knowledge although on average this is likely to be lower than for industry and policy makers, hence modes of communication need to take this into account. This group along with the general public is particularly important to reach to show the benefits of EU funding in enabling this type of cross-disciplinary collaborative project and how it has the potential to have a positive impact on citizens who have been impacted by urban flooding or may be impacted by it in the future. The key messages are therefore explaining the concept and benefits of CENTAUR in a way that would be accessible to people with limited specialist knowledge. Civil society can often be communicated to at specialist trade fairs such as the annual Flood Expo in London, they may also attend innovation events, but as their budgets are often limited then online communication is valuable, especially the project website and Twitter.

## General Public

There are similarities between communicating to the general public and civil society. It is not feasible to aim to reach the whole public, but rather those interested in flooding are the main targets. Key messages are the same as for civil society, although the level of

specialist knowledge will inevitably be lower. Communication means are also similar although the emphasis is more on online communication and use of existing mass media outlets, as only the most dedicated members of the general public will invest time and money to travel to trade fairs and innovation events. A further method of communication to the general public is through science fairs and similar local events which are periodically hosted in cities, usually by universities, these will be considered should such events be organised at an appropriate time and with an appropriate focus.

The audience, the key message, the means, actions and timings for effective communication between CENTAUR partners and the different audiences is summarised has been summarised Table 1 below.

Table 1: Plan for targeted communications.

<b>Audience</b>	<b>Objective</b>	<b>Key Message</b>	<b>Actions</b>	<b>Means</b>	<b>Time</b>	<b>KPIs</b>
Water Sector End User (industry)	Awareness, spark interest.	That CENTAUR is being developed to address urban flooding	Include mention of CENTAUR in meetings about other issues with industry.	Short ppt presentations, attendance at meetings by partner staff who are briefed on CENTAUR	M1-12	Number of subsequent inquiries on CENTAUR.
Water Sector End User (industry)	Generate confidence in concept	CENTAUR can potentially mitigate local flood risk problems	Present at water sector technical meetings. Produce academic outputs as evidence	Short ppt presentations, conference abstracts and papers. Journal papers	M1-24	No. of presentations No. of abstracts/conference papers (short communications) No. of Journal papers (long communications)

<b>Audience</b>	<b>Objective</b>	<b>Key Message</b>	<b>Actions</b>	<b>Means</b>	<b>Time</b>	<b>KPIs</b>
Water Sector End User (industry)	Detailed awareness, initial sales.	CENTAUR has been developed and tested and is available for purchase.	Present CENTAUR performance information at conferences and trade fairs.	Marketing material for trade fairs, Conference Papers Demonstration results published in trade press Software to support sales	M24-36	No of potential sales enquiries
Water Sector End User (industry)	Demonstration of acceptability	CENTAUR has been implemented	Disseminate Installation Protocol as part of the sales process	Installation protocol and software	M30-36	No. of invitations to discuss a CENTAUR installation
Policy makers	Generate confidence in concept	CENTAUR can potentially mitigate local flood risk problems at lower cost than other solutions	Present at water sector meetings attended by regulators. Produce academic outputs as evidence.  Trade magazine articles.	Short ppt presentations, journal papers, trade magazine articles	M18-36	No. of meetings attended.  No of academic outputs.  No. of trade articles.

<b>Audience</b>	<b>Objective</b>	<b>Key Message</b>	<b>Actions</b>	<b>Means</b>	<b>Time</b>	<b>KPIs</b>
Civil Society	Raise Awareness Generate support for use of local RTC	CENTAUR can potentially mitigate local flood risk problems at lower cost than other solutions	Website Social media General environmental fairs Articles in mainstream media	Website, short written communications, attendance at fairs, interactions with the media	M12-36	No of interactions with media No of people informed (size of audience)
General Public	Raise Awareness Generate support for use of local RTC	CENTAUR can potentially mitigate local flood risk problems at lower cost than other solutions so can be implemented with low disruption and cost than traditional solutions	Website Social media General environmental fairs Articles in mainstream media	Website, short written communications, attendance at fairs, interactions with the media	M12-36	No of interactions with media No of people informed (size of audience)
Academic Community	Raise Awareness Generate support and confidence in approach / technology	CENTAUR is innovative, underlying science is robust	Conference attendance Journal publication Hosting research visitors	Journal and Conference Papers	M12-36	No of publications. No of visitors

### 3 Methods of communication and dissemination

Project communication and dissemination were in a number of formats, including but not limited to: written technical reports; open access peer reviewed academic papers; papers and presentations submitted to both academic and industry focussed conferences; articles in the trade press; press releases on developments; PowerPoint and verbal presentations; workshops; and also a small number of downloadable videos were made to describe the development of CENTAUR and its ultimate deployment in the field trials and then the final demonstration. Social media was used to enhance the spread of these main forms of communication and dissemination, and also to present short news updates.

#### 3.1 Websites

A CENTAUR project website has been created (<http://www.sheffield.ac.uk/centaur>), it provides an overview of the project, details of the partners, details of network events, it is the repository of the public deliverables and provides links to published communication and dissemination (e.g. journal papers). The website has been the key means of communicating with Civil Society and the general public, but is also a first point of contact for other stakeholders (water sector end users/academics) to access initial information and contact details. The reach of the website was measured through reporting the number of page views using Google Analytics. Project partners, especially the SMEs who will commercialise CENTAUR, have included the project on their own websites, both in their news sections and bespoke pages on their websites with appropriate content at the appropriate time – i.e. in the initial phase of the project web sites contained information about the concept and that development is happening. Later in the project reference was made to the pilot and demonstration sites and lead towards sales of CENTAUR. EMS have a dedicated project page (<http://www.em-solutions.co.uk/innovation/centaur>), Steinhardt have included news articles on CENTAUR (e.g. <http://steinhardtqmbh.com/steinhardt-is-partner-from-centaur/>) and EAWAG also have a dedicated page for CENTAUR (<http://www.eawag.ch/en/department/sww/projects/centaur/>).

#### 3.2 Academic papers and conferences

Academic journal and conference papers have communicated the action and disseminated project results from CENTAUR to peers (particularly academics in the Sewerage and Real Time Control fields) and provided evidence to water sector end users. All journal papers have been made, and future ones are planned to be made openly accessible, preferably through the Gold open access route wherever logistically possible. Conference papers have also be made open access wherever possible, this has usually been through the Green open access route, unless conference organisers published the papers through a Gold route. Further information on open access can be found in section 5, all Open Access papers are accessible via the CENTAUR OpenAIRE page ([https://www.openaire.eu/search/project?projectId=corda\\_h2020::a468749db757b4bb290b04b284706d8a](https://www.openaire.eu/search/project?projectId=corda_h2020::a468749db757b4bb290b04b284706d8a)). The researchers (USFD/EAWAG/UoC) have an established record of publishing in high quality, international peer-reviewed journals, including the IWA Journal of Hydroinformatics,

Environmental Modelling and Software, Water Research Urban Water, IWA Water Science and Technology, and IAHR Journal of Hydraulic Research. The researchers have also attended and presented at academic conferences covering the areas of urban water systems. Appropriate international and local conferences were attended by a project team member and results presented.

### 3.3 Industrial conferences, literature, trade events, workshops and meetings

In order to raise awareness of CENTAUR to the target market it is vital that it was publicised to the relevant groups, whether this is in person through presentations and stands at conferences and trade fairs, in print through professional magazines, or through word of mouth. Partners have attended relevant trade shows include IFAT (every two years, <http://www.ifat.de>) in Germany and WEFTEC (every year, <https://www.weftec.org/>) in the US; Global Water Summit in France, Aqua Urbanica (co-organised by EAWAG every year, <http://www.aqua-urbanica.org>) in either Austria, Germany or Switzerland. National level technical / professional meetings were targeted, such as [UKWIR](#) (UK Water Industry Research), [CIWEM](#) (Chartered Institute for Water and Environmental Management) and [SWIG](#) (Sensors for Water Interest Group) in the UK; the Portuguese Water Resources Association ([APRH](#)) and Portuguese Association of Environmental and Sanitary Engineering ([APESB](#)); German Water and Wastewater Association ([DWA](#)). Additionally, professional trade magazines such as [Water and Sewerage](#), [Water and Waste Treatment](#) and [WET News](#) were also targeted. Numerous workshops were organised to bring interested parties together to discuss the development of CENTAUR and gain feedback from stakeholders. Furthermore the SMEs in particular have had, and are still having, regular meetings with clients and these are ideal forums to introduce CENTAUR and spread knowledge of the project and eventually the product itself through word of mouth. Details are given in Table 4.

### 3.4 Patenting

There may be the scope for some of the technical knowledge developed in CENTAUR to be the subject of a patent application. Patenting, as well as a way of protecting intellectual property, can also be a means of formally disseminating technical knowledge. A period of protection is obtained via patent application, before examination and potential granting of a patent. Submitting a patent application will ensure that academic partners can still publish in these areas within the duration of the project. However, technical information has been communicated with care to avoid losing the opportunity to apply for patent protection. Partners have a clause in the Project Consortium Agreement that means that potential publications were circulated, and care was taken to ensure that no confidential technical information was disclosed; limiting opportunities due to early disclosure (see section 5.4).

Outputs from the CENTAUR project for which partners are considering applying for a patent are primarily innovations with the Flow Control Device and with the LMCS (Local Monitoring and Control System). The consortium is aware of significant costs involved in

patenting and potential further costs should action be required to defend a patent, together with the dangers of the content of the patent being publically available. Both of the SME partners are exploring the cost benefit of following this route of IP protection. The project has already published information on CENTAUR which would limit the scope of other parties from patenting technologies that are similar to those in the project. Currently the main focus on IPR protection is on the careful management of technical information within the consortium to ensure that their technology is a “trade secret” that can be controlled with more limited expenditure.

### 3.5 Social Media

Social media use was discussed with the partners in the first 6 months of the project. At this time it was decided that the timing was not appropriate to develop a visible social media presence. Given that the initial development phase lasted for eighteen months, it was felt that developing social media profiles too early and trying to maintain interest with the small amount of disclosable material would damage the CENTAUR concept, especially with water sector end users.

During the first period, limited social media was used. A Research Gate project has been set up (<https://www.researchgate.net/project/CENTAUR-3>) to focus on the academic community. A Zenodo project page has also been set up (<https://www.zenodo.org/communities/centaur/>) to allow publications which are not otherwise available online (e.g. some conference papers) to be shared, this allowed project partners to direct enquirers from water sector end users to a trusted information source. The partners also discussed how to make the public project deliverables available and agreed to do this via the web project site initially and in the longer term via the Zenodo project page.

On entering the second period of the project, results were being produced and the SMEs were actively planning marketing and also academic publications were being produced. A project Twitter account was created and used to publicise operations of the pilot and demonstration sites at Coimbra and Toulouse, and other communications activities such as presenting at conferences, new publications and project news. A key advantage of a Twitter feed is that it can reach a broad audience including industry, civil society, policy makers, the scientific community and the general public. Project members with existing Twitter profiles were encouraged to share this, and thereby act as multipliers for the account to quickly gain followers from relevant stakeholders.

### 3.6 Technical and Innovation Events

Events organised by groups such as the European Innovation Partnership (EIP) clusters, WssTP and ICT4Water have been used for spreading knowledge about new technologies to a broad group of parties from scientific, industrial and policy making backgrounds and were also useful to collect knowledge which may be beneficial to the development and exploitation of CENTAUR. The CENTAUR team attended several of these events as a method to communicate the results to a community of researchers involved in EU funded

research and also potential water sector end users. This communication activity also allowed for the development of future research activities based on the science and technology developed during the project.

## 4 Record of CENTAUR dissemination and communication

Section 4.1 provides a list of completed and firmly planned dissemination activities, the focus is on written reports and papers. Section 4.2 lists communication events completed and includes information on whether the communication included a dissemination element. Conference papers will generally appear in both sections 4.1 and 4.2 as they not only disseminate results, but also communicate the project to an audience and are a good source of two way communication with the scientific community, water sector end users (industry), policy makers and civil society.

### 4.1 Dissemination record

#### 4.1.1 Published dissemination

Table 2: CENTAUR published dissemination

No.	Date	Type	Title	DOI
1	Feb. 2016	Journal (Water)	Semi- vs. Fully-Distributed Urban Stormwater Models: Model Set Up and Comparison with Two Real Case Studies	<a href="https://doi.org/10.3390/w8020058">10.3390/w8020058</a>
2	Aug. 2016	Conference (SPN8, NL)	Alleviating The Risk of Sewer Flooding using Fuzzy Logic in a Real Time Control System – An Experimental Study	<a href="https://doi.org/10.5281/zenodo.399119">10.5281/zenodo.399119</a>
3	Nov. 2016	Conference (CCWI 2016, NL)	Where to install flow control gates in order to maximise in sewer storage and reduce urban flood risk?	<a href="https://doi.org/10.5281/zenodo.584104">10.5281/zenodo.584104</a>
4	Nov. 2016	Conference (CIWEM UDG Autumn 2016, UK)	CENTAUR: Real time flow control system for flood risk reduction	<a href="https://doi.org/10.5281/zenodo.400969">10.5281/zenodo.400969</a>
5	Feb. 2017	Journal (Environ Modell Softw)	Appraisal of data-driven and mechanistic emulators of nonlinear hydrodynamic urban drainage simulators	<a href="https://doi.org/10.1016/j.envsoft.2017.02.006">10.1016/j.envsoft.2017.02.006</a> Open Access version: <a href="https://arxiv.org/abs/1609.08395v2">arXiv:1609.08395v2</a>

No.	Date	Type	Title	DOI
6	Sept. 2017	Conference (CCWI 2017, UK)	Optimising a Fuzzy Logic Real-Time Control System for Sewer Flooding Reduction using a Genetic Algorithm	<a href="https://doi.org/10.15131/shef.data.5363572.v1">10.15131/shef.data.5363572.v1</a>
7	Sept. 2017	Conference (ICUD 2017, CZ)	Developing and testing a Fuzzy Logic algorithm to alleviate the risk of flooding by controlling a flow control device in a laboratory setting	<a href="https://doi.org/10.5281/zenodo.891133">10.5281/zenodo.891133</a>
8	Sept. 2017	Conference (ICUD 2017, CZ)	Real time flow control to utilise existing in-sewer storage	<a href="https://doi.org/10.5281/zenodo.890882">10.5281/zenodo.890882</a>
9	Nov. 2017	Conference (CIWEM UDG Autumn 2017, UK)	CENTAUR: Smart Utilisation of Wastewater storage capacity to prevent flooding	<a href="https://doi.org/10.5281/zenodo.1051200">10.5281/zenodo.1051200</a>
10	Nov. 2017	Conference (ENEG – Encontro Nacional de Entidades Gestoras (National Meeting of Water and Wastewater Utilities), PT)	A Participação Da Águas De Coimbra No Projeto Europeu CENTAUR (The Participation of Águas De Coimbra in the European Project CENTAUR)	<a href="https://doi.org/10.5281/zenodo.1065938">10.5281/zenodo.1065938</a>
11	May 2017	Journal (J. Hydrol.)	Identifying the best locations to install flow control devices in sewer networks to enable in-sewer storage	<a href="https://doi.org/10.1016/j.jhydrol.2017.11.020">10.1016/j.jhydrol.2017.11.020</a> (Not open access) or see <a href="#">Green open access version</a>

Type: Journal = Article in journal; Conference = Publication in conference proceeding / workshop. Followed by journal abbreviated title or conference short name and country.

#### 4.1.2 Planned and submitted dissemination

Table 3: CENTAUR planned and submitted dissemination

No.	Date	Type	Title	Status
1	Sept. 2018	Conference (UDM 2018)	Real-time CSO spill control using existing in-sewer storage	Accepted
2	Sept. 2018	Journal (J. Hydroinformatics)	Optimisation of a fuzzy logic based local real-time control system for mitigation of sewer flooding using genetic algorithms	Advanced draft
3	Sept. 2018	Journal	Results from field deployment of the CENTAUR system	Advanced draft
4	Sept. 2018	Journal	Analysing the potential of smart real time control gates for water depth management in urban drainage systems	Advanced draft
5	Sept. 2018	Journal	Generalizing reward functions to identify the best locations to install flow control devices in sewer systems	Advanced draft
6	Oct. 2018	Journal	Results from laboratory testing of the CENTAUR system	Submitted, but rejected, being rewritten taking reviewer comments into account
7	Nov. 2018	Conference (CIWEM UDG Autumn 2018, UK)	The application of localised active control to maximise the hydraulic performance of existing sewer storage tanks and CSOs	Accepted
8	July 2019	Conference (Conférence internationale Eau dans la ville)	General overview of CENTAUR with focus on Toulouse demonstrator	Abstract to be submitted

Date is the planned or actual submission date, or the date of the conference / workshop.

## 4.2 Communications Record

### 4.2.1 Past communication activities

Table 4: CENTAUR past communication activities

No.	Date	Title	Type	Diss.?	Categories Reached							
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other	
1	Jul 2015	Horizon 2020 - The framework programme for research and innovation (2014-2020)	Press Rel.	N							X	
2	Jul 2015	Diário As Beiras - "Universidade de Coimbra e Águas de Coimbra em consórcio europeu sobre cheias"	Soc. Med.	N				X				
3	Jul 2015	Diário de Coimbra - "Praça da República "ajuda" a combater desperdício de água"	Soc. Med.	N				X				
4	Jul 2015	Revista Pontos de Vista - Jornal Público - "Qualidade da marca é qualidade do produto"	Soc. Med.	N				X				
5	Dec 2015	ENEG 2015 - Os desafios da sustentabilidade integral do setor da água - "CENTAUR"	Part. Conf.	N	X							
6	Dec 2015	Conselho Externo de Aconselhamento e Aferição (CEAA) da Iniciativa Energy for Sustainability	Part. Oth.	N	X	X						
7	Jan 2016	EMS Innovation	Flyers	N		X						
8	Jan 2016	EMS Innovation	Website	N		X						
9	Feb 2016	3 <sup>rd</sup> EIP Water Conference, Leeuwarden, NL	Part. Oth.	N	X	X			X			
10	Mar 2016	Centaur estuda sistema inteligente para prevenir cheias (DIARIO DE COIMBRA)	Press Rel.	N				X				
11	Mar 2016	WWT Smart Water Network Conference	Part. Conf.	N	X	X			X			
12	Mar 2016	BIOSFERA RTP2 (TV show) ( <a href="https://www.rtp.pt/play/p1995/e228689/biosfera">https://www.rtp.pt/play/p1995/e228689/biosfera</a> )	Vid./Film	N				X				
13	Jun 2016	Thames Water	Other	N		X						
14	Jun 2016	ICT 4 Water cluster meeting at IWA LET2016	Part. Oth.	N	X							

No.	Date	Title	Type	Diss.?	Categories Reached							
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other	
15	Sep 2016	Southern Water	Other	N		X						
16	Sep 2016	8th International Conference on Sewer Processes and Networks - Alleviating The Risk of Sewer Flooding using Fuzzy Logic in a Real Time Control System – An Experimental Study	Part. Conf.	Y	X	X	X					
17	Oct 2016	EPA 2016 Annual Horizon 2020 Societal Challenge 5 Information Day	Brok. Ev.	N	X	X	X		X			
18	Nov 2016	CIWEM UDG Autumn Conference & Exhibition 2016 - Exhibition stand	Exhib.	N		X			X			
19	Nov 2016	CCWI 2016: Computer and Control for the Water Industry - Where to install flow control gates in order to maximise in-sewer storage and reduce urban flood risk?	Part. Conf.	Y	X	X	X					
20	Nov 2016	CIWEM UDG Autumn Conference & Exhibition 2016 - CENTAUR: Real time flow control system for flood risk reduction	Part. Conf.	Y	X	X	X	X	X			
21	Nov 2016	Presentation to the "Toulouse Metropole" interlocutor for the CENTAUR project for dissemination to his line managers	Other	N					X			
22	Nov 2016	"Integrating CENTAUR in UK Flooding Solution" Tier 1 Consultant Workshop (Jacobs, Mott Macdonald, MWH, RPS, Mouchel) with USFD and EAWAG	Org. Wkshp	N		X						
23	Dec 2016	Intertek Energy and Water consultancy services	Other	N	X							
24	Dec 2016	Jacobs	Part. Oth.	N		X						
25	Dec 2016	Mott Macdonald	Part. Oth.	N		X						
26	Dec 2016	Arcadis	Pitch Ev.	N		X						
27	Jan 2017	10º encontro EfS- Empresas	Joint H2020	N	X	X						
28	Jan 2017	COSMOS-UK Industry Consultation Workshop	Other	N		X						

No.	Date	Title	Type	Diss.?	Categories Reached							
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other	
29	Feb 2017	Veolia UK	Part. Oth.	N		X						
30	Mar 2017	DEC-NOTICIAS	Flyers	N	X	X	X	X				
31	Mar 2017	Presentation to Pennine Water Group	Other	Y	X							
32	Mar 2017	Sensors for Water Interest Group workshop on Smart Wastewater Networks	Part. Wkshp	N	X	X		X				
33	Apr 2017	Unity Water (meeting)	Other	N		X						
34	Apr 2017	Stantec (meeting)	Other	N		X						
35	Apr 2017	Suez (meeting)	Other	N		X						
36	Apr 2017	Camden County Municipal Utilities Authority (meeting)	Other	N		X						
37	Apr 2017	Los Angeles Sanitation (meeting)	Other	N		X						
38	Apr 2017	Instanbule Water and Sewage Administration (meeting)	Other	N		X						
39	Apr 2017	Watercase (New Zealand) (meeting)	Other	N		X						
40	Apr 2017	Twenty65 conference presentation	Part. Conf.	N	X	X			X			
41	Apr 2017	AQUA consultants (meeting)	Other	N		X						
42	Apr 2017	Brief presentation to the Chief executive of Veolia Eau	Other	N	X							
43	Apr 2017	Severn Trent Water (meeting)	Other	N		X						
44	May 2017	AQUA consultants (meeting)	Other	N		X						
45	May 2017	CIWEM UDG Spring Conference – Exhibition Stand	Exhib.	N		X			X			
46	May 2017	DWA Northeast	Part. Conf.	N		X						

No.	Date	Title	Type	Diss.?	Categories Reached							
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other	
47	May 2017	Wod-Kan International Fair of Machines and Facilities for Water Supply and Sewage Systems Bydgoszcz, Poland	Other	N		X						
48	May 2017	DWA webinar	Part. Conf.	N		X						
49	Jun 2017	WssTP Water Market Europe (presented)	Other	N	X	X	X		X			X
50	Jun 2017	ICT4Water Cluster Workshop at WSSTP Annual meeting, Brussels, BE	Part. Wkshp	N	X	X			X			
51	Jun 2017	CIWEM UDG summer meeting (Scotland) Trade stand	Exhib.	N		X						
52	Jun 2017	DWA Bad Kissingen	Part. Conf.	N		X						
53	Aug 2017	Welsh Water (meeting)	Other	N		X						
54	Aug 2017	Anglian Water, RPS, Atkins (meeting)	Other	N		X						
55	Sep 2017	Trade stand at CCWI 2017	Exhibition	N	X	X			X			
56	Sep 2017	Optimising a Fuzzy Logic Real-Time Control System for Sewer Flooding Reduction using a Genetic Algorithm at CCWI 2017 – Computing and Control for the Water Industry	Part. Conf.	Y	X	X			X			
57	Sep 2017	Developing and testing a Fuzzy Logic algorithm to alleviate the risk of flooding by controlling a flow control device in a laboratory setting at ICUD 2017 - 14th IWA / IAHR International Conference on Urban Drainage	Part. Conf.	Y		X	X		X			
58	Sep 2017	Real time flow control to utilise existing in-sewer storage at ICUD 2017 - 14th IWA / IAHR International Conference on Urban Drainage	Part. Conf.	Y	X							
59	Sep 2017	Thames Water (meeting, presentation of CENTAUR)	Other	N		X						
60	Sep 2017	BWK Berlin - Water + Waste Management + Land Improvement Engineering Association	Part. Wkshp.	N		X						

No.	Date	Title	Type	Diss.?	Categories Reached							
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other	
61	Sep 2017	DWA Nord	Part. Conf.	N		X						
62	Sep 2017	Singapore Urban Bridges trade mission	Part. Oth.	N		X						
63	Sep 2017	Singapore Public Utilities Board (meeting)	Other	N		X						
64	Sep 2017	Singapore House and Development Board	Other	N		X						
65	Sep 2017	Deploying Autonomous Local Real Time Control to Achieve Adaptive Surface Water Management at CIWEM Surface Water Management 2017	Part. Conf.	Y		X			X			
66	Sep 2017	CIWEM Surface Water Management 2017, presentation "Deploying Autonomous Local Real Time Control to Achieve Adaptive Surface Water Management"	Part. Conf.	Y	X	X						
67	Sep 2017	DWA Berlin	Part. Conf.	N		X						
68	Sep 2017	Veolia UK (meeting)	Other	N		X						
69	Sep 2017	Reducing Wastewater Hydraulic Capacity Flood Risk through Monitoring and Autonomous Local Control at Sensing in Water Conference and Exhibition	Part. Conf.	N	X	X	X					
70	Sep 2017	Boosting Research & Innovation in the Water Sector: The Impact of EU-funded actions – Side event at EIP Water Conference 2017, Porto, PT.	Part. Oth.	Y	X	X			X			
71	Sep 2017	AECOM (meeting)	Other	N		X						
72	Oct 2017	WEFTEC Chicago	Trade Fair	N	X	X	X	X	X			
73	Oct 2017	DWA Baden-Wuerttemberg	Part. Conf.	N		X						
74	Oct 2017	Sustainable Drainage Systems at Ordem dos Engenheiros da Região Centro (Portuguese Engineers Society - central region)	Part. Conf.	N	X	X		X				

No.	Date	Title	Type	Diss.?	Categories Reached							
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other	
75	Oct 2017	DWA Hof	Part. Conf.	N		X						
76	Nov 2017	CENTAUR Smart Utilisation of Wastewater storage capacity to prevent flooding at CIWEM UDG Autumn Conference	Part. Conf.	Y		X			X			
77	Nov 2017	DWA Magdeburg	Part. Conf.	N		X						
78	Nov 2017	Trade stand at CIWEM UDG Autumn Conference	Exhib.	N	X	X	X	X	X			
79	Nov 2017	CIWEM Urban Drainage Group Autumn Conference and Exhibition 2017 presentation "CENTAUR Smart Utilisation of Wastewater Storage Capacity to Prevent Flooding"	Part. Conf.	Y	X	X	X	X	X			
80	Nov 2017	CIWEM Urban Drainage Group Autumn Conference and Exhibition 2017 presentation "Artificial Intelligence for Wastewater"	Part. Conf.	Y	X	X	X	X	X			
81	Nov 2017	DWA Hesse, Rhineland-Palatinate, Saarland	Part. Conf.	N		X						
82	Nov 2017	ENEG – Encontro Nacional de Entidades Gestoras 2017	Part. Conf.	Y	X							
83	Nov 2017	WSSTP Water Knowledge Europe Brokerage event, CENTAUR presentation made.	Part. Oth.	Y	X	X	X		X			
84	Dec 2017	Presentation of ICT4Water Action Plan	Part. Oth.	N	X	X	X		X			
85	Dec 2017	Meeting with SDS	Other	N		X						
86	Jan 2018	Acqua Alta, Cologne Trade Fair and Congress for Flood Defence	Trade Fair	N		X						
87	Jan 2018	Modelling of Urban Floods (presented)	Part. Conf.	N	X	X						
88	Feb 2018	The future with real-time Data within wastewater... What does it look like? - workshop with Nuron	Part. Wkshp.	N	X	X	X					
89	Feb 2018	Meeting with ARUP	Other	N		X						

No.	Date	Title	Type	Diss.?	Categories Reached							
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other	
90	Feb 2018	Piping and Canal Forum, Oldenburg	Part. Oth.	N		X						
91	Feb 2018	World Water Tech (presented)	Part. Conf.	N		X						
92	Feb 2018	DWA Experts Forum Stormwater Basins	Part. Oth.	N		X						
93	Mar 2018	WssTP Water market Europe (presented)	Part. Conf.	N	X	X						X
94	Apr 2018	Atkins Global and Scottish Water (meeting)	Other	N		X						
95	Apr 2018	Jacobs (meetings)	Other	N		X						
96	Apr 2018	Global Water Summit (exhibition stand, 1-1 meetings)	Part. Conf.	N		X						
97	Apr 2018	South West Water/AQUA consulting (meeting)	Other	N		X						
98	May 2018	Los Angeles Sanitation (conference call, presentation of CENTAUR)	Other	N		X						
99	May 2018	AECOM (meeting)	Other	N		X						
100	May 2018	IFAT (exhibition stand, 1-1 meetings)	Trade Fair	N	X	X	X	X	X	X	X	X
101	May 2018	IFAT (exhibition stand, 1-1 meetings)	Trade Fair	N	X	X	X	X	X	X	X	X
102	May 2018	Yorkshire Water Get_INVOLVED Innovation Sprint	Part. Oth.	N	X	X						
103	May 2018	Berliner Wasserbetreiber (meeting)	Other	N		X						
104	May 2018	Irish Water (meeting)	Other	N		X						
105	May 2018	In-Situ (meeting)	Other	N		X						
106	May 2018	SIPA (meeting)	Other	N		X						
107	May 2018	2018 Water Industry Awards event (won best innovation award)	Other	N		X						
108	May 2018	Severn Trent Water (presentation to operation staff )	Other	N		X						

No.	Date	Title	Type	Diss.?	Categories Reached							
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other	
109	Jun 2018	Measuring and Control Equipment (MACE) Pty (meeting)	Other	N		X						
110	Jun 2018	EASME - Promoting market-ready water innovations: investor café	Pitch event	N	X	X						X
111	Jun 2018	ICT4Water cluster workshop: Towards A Digital Single Market of water Services	Part. Wkshp	N	X	X						
112	Jun 2018	European Waste Water TAG, Isle Utilities (presented)	Other	N		X						
113	Jun 2018	ARUP (presentation)	Other	N		X						
114	Jun 2018	Planex (Portugal, potential distributor) (meeting)	Other	N		X						
115	Jun 2018	CENTAUR Animation on YouTube	Vid./film	N				X				
116	Jul 2018	UK Practitioner's Working Group	Org. Wkshp.	Y		X						
117	Jul 2018	ARUP and Welsh Water (meeting)	Other	N		X						
118	Jul 2018	CENTAUR Project Dissemination Event	Org. Wkshp.	Y	X	X	X					
119	Jul 2018	WET news article on CENTAUR	NSNPR Pub.	N		X						
120	Aug 2018	Mott MacDonald and Thames water (presentation of CENTAUR)	Other	N		X						
121	Aug 2018	WSP (Australia) (conference call)	Other	N		X						
122	Sept 2018	Directorate on Research and Innovation (DG-RTD) workshop on Urban Water Management	Part. Wkshp	N	X	X			X			
123	Sept 2018	Open Session with staff from EASME	Other	N								X
124	Oct 2018	Scottish Water (conference call)	Other	N		X						

Categories reached: Sci. = Scientific Community (higher education, research); Ind.= Industry; Civ. = Civil Society; G.P. = General Public; P.M. = Policy Makers; Other = Investors, Customers and Other.

Table 5: Abbreviations for type of communication

Type	Type Description
Org. Conf.	Organisation of a Conference
Org. Wkshp	Organisation of a workshop
Press Rel.	Press release
NSNPR Pub.	Non-scientific and non-peer reviewed publications (popularised publications)
Exhib.	Exhibition
Flyers	Flyers
Training	Training
Soc. Med.	Social media
Website	Web-site
Com. Cam.	Communication campaign (e.g. radio, TV)
Part. Conf.	Participation to a conference
Part. Wkshp	Participation to a workshop
Part. Oth.	Participation to an event other than a conference or workshop
Vid./Film	Video/film
Brok. Ev.	Brokerage event
Pitch Ev.	Pitch event
Trade Fair	Trade fair
Joint H2020	Participation in activities organised jointly with other H2020 project(s)
Other	Other

#### 4.2.2 Planned communications

This section lists items for which there are firm plans, other opportunities will arise within and after the period covered below.

Table 6: CENTAUR planned communication activities

No	Date	Title	Type	Diss.?	Categories Reached						
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other
1	Sep. 2018	Veolia CENTAUR video	Vid./Film	N	X	X	X	X	X		
2	Nov 2018	Trade stand at CIWEM UDG Autumn Conference	Exhib.	N	X	X	X		X		
3	Nov. 2018	Conference (CIWEM UDG Autumn 2018, UK)	Part. Conf.	Y	X	X	X		X		

No	Date	Title	Type	Diss.?	Categories Reached						
					Sci.	Ind.	Civ.	G.P.	P.M.	Medias	Other
4	Jul 2019	General overview of CENTAUR with focus on Toulouse demonstrator at Conférence internationale Eau dans la ville	Part. Conf.	Y	X	X	X		X		

## 5 Communication considerations

### 5.1 Open Access

As part of the grant agreement (Article 29.2) there is a requirement to ensure open access (free of charge, online access for any user) to all peer-reviewed scientific publications relating to the results of CENTAUR, this may be via a Gold or Green route. Gold open access is when the article is made openly accessible online by the publisher, often following payment of a one-off fee which may be eligible to be paid from the grant if incurred before the end date. Green open access is when the article is not openly accessible through the publisher, but is archived in an online repository. The version placed in the repository may be the published version or the final peer reviewed manuscript (but not the version prior to refereeing), under H2020 there is a maximum embargo period of 6 months between publication of the article and it being openly accessible in an archive.

Within the CENTAUR project, the preference has been to publish via the Gold open access route wherever this was feasible within the available budget.

A machine-readable electronic copy of articles published by both gold and green open access routes must be stored in an enduring repository which is compatible with OpenAIRE (it can be institutional, subject-based or centralised) as soon as possible, and at the latest on publication. OpenAIRE compatible repositories can be found or checked at <https://www.openaire.eu/search/data-providers>. The article must be open access within the repository either from the date of publication (Gold) or within 6 months of publication (Green). The version of the article which can be submitted can be checked via the SHERPA/ROMEO website: <http://www.sherpa.ac.uk/romeo/index.php>. The repository must include bibliographic metadata as listed below to ensure that the article will be linked to the CENTAUR project in OpenAIRE ([https://www.openaire.eu/search/project?projectId=corda\\_h2020::a468749db757b4bb290b04b284706d8a](https://www.openaire.eu/search/project?projectId=corda_h2020::a468749db757b4bb290b04b284706d8a)).

As described in the annotated model grant agreement ([http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/amga/h2020-amga\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf)) the required bibliographic metadata is:

- the terms 'European Union (EU)' and 'Horizon 2020'
- the name of the action (Cost Effective Neural Technique for Alleviation of Urban Flood Risk), acronym (CENTAUR) and grant number (641931)

- the publication date, and length of embargo period if applicable
- a 'persistent identifier' (e.g. a stable digital object identifier (DOI) which identifies the publication and links to an authoritative version)

Open Access to peer-reviewed scientific publications primarily refers to journal articles, however, grant beneficiaries were strongly encouraged to provide open access to other types of scientific publications including: monographs; books; conference proceedings; grey literature (informally published written material not controlled by scientific publishers, e.g. reports) (see [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-pilot-guide\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf) which also includes some further details).

The CENTAUR project has a Zenodo community for adding any openly accessible material - <https://www.zenodo.org/communities/centaur/>.

There are also requirements surrounding open access to research data, information on this has been included in the CENTAUR data management plan.

## 5.2 Acknowledgement of EU funding and disclaimer

The project met the requirements set out in Article 29.4 of the grant agreement by including the EU emblem and the following acknowledgement text in any dissemination of results (unless it is impossible or agreed with the Agency):

“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 641931”.

Project partners utilised guidance and information on use of the EU emblem and downloaded the emblem from [http://europa.eu/about-eu/basic-information/symbols/flag/index\\_en.htm](http://europa.eu/about-eu/basic-information/symbols/flag/index_en.htm).

The project also complied with Articles 29.5 and 38.1.3 by including a disclaimer which excludes responsibility of the Agency in any communication activity related to the project or dissemination of results. This disclaimer indicates that the communication and/or dissemination reflects only the author's view and that the Agency is not responsible for any use that may be made of the information it contains. All publications originating from CENTAUR have followed, and future ones will follow these requirements.

## 5.3 Visual ID of CENTAUR

A logo has been produced (Figure 1), which is available on the internal site and used by project partners to publicise CENTAUR.



Figure 1: CENTAUR Logo

#### 5.4 Notification of dissemination

In order to protect the potential for commercial exploitation (including patenting) the partners adhered to the following procedures. As per Article 29.1 of the Grant Agreement and Section 8.3 of the Consortium Agreement, prior notice of any planned publication has been given to all other project partners at least 45 days in advance. This notice included sufficient information on the content and results to be presented. Project partners have 30 days from receipt to object to such a notice. This had been discussed and agreed to at the second General Assembly held in Coimbra in March 2016.

In order to optimise the process of notification and responses, a single contact person at each partner organisation was agreed. This person received the notification of dissemination and was responsible for co-ordinating the response from their organisation.

The list of contacts can be found in Table 5.

Table 5: List of dissemination contacts at each partner.

Partner	Contact
AC	Irene Marques
EAWAG	Joao Leitao
EMS	Sonja Ostojin
Steinhardt	Joerg Steinhardt (cc Linda Coates)
UoC	Alfeu Sá Marques
USFD	Simon Tait
Veolia Eau	Gaëlle Metois

## 6 Conclusions

This deliverable outlines the principles and actions that were used by the partners in the CENTAUR project to communicate and disseminate information about activities and the knowledge and technology developed during the action.

The Communication Plan identified different audiences that were targeted during the project. Four different audience groups had been identified; water sector end users (industry), academics (scientific community), policy makers, Civil Society and the general public. Each group was examined and their needs for information in order to meet the overall project objectives were identified. These needs ranged from awareness-raising, to the provision of detailed and trusted technical data to generate trust in the CENTAUR concept and system. Once the needs of each group were identified different, modes of communication were identified, e.g. peer-reviewed journal paper, short visual presentation, press release, etc. The communication needs of each group were then linked with appropriate modes of communication and a plan of activities was designed. In the first 18 months of the project the objective was to raise awareness of the CENTAUR project especially within the water sector end users. Therefore in this stage of the project, in which major results were still to be obtained, external communication focussed on aspects of the science that were mature enough for publication and activities to raise the awareness of the CENTAUR concept to potential end users. In the second half of the project the aim was to supply trusted information to this end user group, and to now raise awareness of the technology and its capabilities within the policy maker, civil society and general public audiences.

This final communication plan also includes the activities that are firmly planned, other activities, especially meetings with consultants and water companies will continue to be held as opportunities arise.