

Communication and Dissemination Strategy for digital-water.city

Deliverable 6.3

Deliverable N°6.3	Communication and Dissemination Strategy for digital-water.city
Related Work Package	6
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Website	www.digital-water.city
Abstract	The present communication strategy defines and establishes an effective framework which will guide the communication and dissemination activities throughout the project. This document presents the communication aims, strategy and the concrete means to be deployed.

Dissemination level of the document

<input checked="" type="checkbox"/>	PU	Public
<input type="checkbox"/>	PP	Restricted to other programme participants
<input type="checkbox"/>	RE	Restricted to a group specified by the consortium
<input type="checkbox"/>	CO	Confidential, only for members of the consortium

Versioning and Contribution History

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S	2020-11-18	Nico Caradot	Review of the update

* The version convention of the deliverables is described in the Project Management Handbook (D7.1). *D* for draft, *R* for draft following internal review, *S* for submitted to the EC and *V* for approved by the EC.

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Glossary

Communication¹ on projects is a strategically planned process that starts at the outset of the action and continues throughout its entire lifetime, aimed at promoting the action and its results. It requires strategic and targeted measures for communicating about (i) the action and (ii) its results to a multitude of audiences, including the media and the public and possibly engaging in a two-way exchange.

Dissemination² is the public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium. As such, communication refers to the promotion of the action with targeted information to multiple audiences, while to disseminate results means to make them public by appropriate means. Dissemination of results cannot replace communication activities (or vice-versa).

¹ http://ec.europa.eu/research/participants/portal/desktop/en/support/reference_terms.html

² Ibid.

1. Introduction

This document is developed as part of the digital-water.city project, which has received funding from the European Union's Horizon 2020 Research and Innovation programme, under the Grant Agreement number 820954.

The purpose of the present communication strategy is to define and establish an effective framework which will guide the communication and dissemination activities throughout the project. This communication and dissemination strategy will contribute to the successful implementation of the project and reinforce the project's potential impact on policy and management. It will be updated on month 18 and 36 of the digital-water.city project.

All communication and dissemination activities will be carried out in accordance with the Grant Agreement.

The plan is organised as follows:

- Communication and dissemination strategy – Sections 1-12
- Collective and demo cities' action plans – See section 13 (Action plan)

2. General objectives

2.1. Objective of the project

digital-water.city's (DWC) main goal is to boost the integrated management of waters systems in five major European urban and peri-urban areas, Berlin, Milan, Copenhagen, Paris and Sofia, by leveraging the potential of data and smart digital technologies.

2.2. Objective of the communication and dissemination activities

According to the grant agreement, the communication objective is to raise citizens' awareness about the benefits of digital solutions for urban water management and to ensure knowledge transfer and uptake of DWC main outcomes among citizens, utilities, policymakers and the scientific community.

There are some specific communication objectives:

- SO6.1: to coordinate the outreach activities of the project,
- SO6.2: to create a structure enabling effective information exchange,
- SO6.3: to facilitate uptake of the DWC digital solutions and policy recommendations by the target audiences.

In addition, respecting the GDPR regulation and IPR issues in the communication is of uppermost importance.

3. Communication and dissemination management process

3.1. Communication and dissemination players: participants, roles and responsibilities

The communication and dissemination activities (Tasks 6.1 – 6.3) are led and coordinated by the WP6 leader, Arctik. However, to be successful, the activities will require a proactive and timely contribution from all consortium members who have sector and location specific knowledge, channels and networks. All partners have been given person months for dissemination activities and should keep the Work Package leader updated about their communication plans and activities.

To better coordinate the communication actions, a communication contact point must be defined for each partner organisation.

The following Table 1 shows the involvement of each partner in WP7. Partners will inform Arctik in case of internal personnel changes.

Table 1. Partner WP7 effort and communication contact points

Partner number & short name	WP7 effort (PMs)
1 – KWB	6.00
2 – BWB	1.00
3 – DHI	0.50
4 – SIAAP	0.50
5 – BIOFOS	0.50
6 – KANDO	0.50
7 – SV	1.00
8 – UNIVPM	2.00
9 – CAP	0.50
10 – ARCTIK	24.00
11- ECOL	1
12 – ICRA	1.00
13 – VRAG	1.00
14 – IPEK	0.50
15 – UNIMI	1.00
16 – ISS	0.50

17 - SU	0.50
18 - STRANE	1.00
19 - FLUID	1.00
20 – IOTSENS	1.00
21 - SINTEF	1.00
22 - IRSTEA	0.50
23 – P4UW	0.50
24 – ICA	1.00

To support the planning, coordination and monitoring of the dissemination activities, most of the WPs will be asked to implement some communication activities. This includes events participation, news drafting, videos, press, (...). Arctik will provide the necessary support.

More generally, cross-promotion is encouraged, meaning that all partners are encouraged to disseminate collective project updates whenever relevant through their own organisational and/or personal channels.

Arctik made available a toolkit to facilitate the communication of all partners (in M12, see milestone MS6.4 Communication toolkit with first materials). This toolkit is available both on the website (for public visuals) and on the cloud.

3.2. Internal communication

Good internal communication is vital for successful external communication. A good collaboration therefore needs to be established between the communication experts and the other partners of the project.

To ensure efficient internal communications, KWB implemented the cloud-based management tool Nextcloud. This tool allows streamlining the project workflow through project planning and visualisation, task allocation, and team information sharing. Moreover, Nextcloud allows all the partners to have an easy access to shared and synchronised files. The tool is available on desktop and mobile.

In addition, KWB established an internal mailing list for communication between the project partners.

Finally, as part of the internal communication strategy, Arctik as a WP leader will regularly follow up on the upcoming or past activities set out in the partners’ individual action plans (Section 13). This is to make sure that all activities are communicated to Arctik who can support in advance and/or build on them to maximise the project’s impact.

Internal communication is also part of WP7 activities and is co-managed with KWB.

3.3. Document maintenance

The Communication and Dissemination Strategy document is a living document to be updated regularly.

A first update of the document is foreseen at M18 (November 2020). This update will focus on updating the list of target groups and the messages for these targets.

This document contains a revision history log. When changes are made, the log will reflect an updated version number, the date of the new version, the author making the change, and a summary of the changes.

An initial plan for the further development of the strategy is set out in the Table 2 below.

Table 2. Main steps for the development of the Communication and Dissemination Plan

Who	When	What
Arctik	Kick-off meeting (M1)	Presentation of initial ideas and next steps
Arctik	First General Assembly, September 2019 (M4)	Presentation of developed ideas and next steps
Deliverable reviewer (KWB)	October 2019 (M5)	Feedback on the 1 st communication and dissemination strategy
Arctik	November 2019 (M6)	Submission of the final version of the 1 st communication and dissemination strategy
Deliverable reviewer (KWB)	November 2020 (M17)	Feedback on the 2 nd communication and dissemination strategy (add further information on target groups, narratives, value propositions, messages)
Arctik	November 2020 (M18)	Submission of the final version of the 2 nd communication and dissemination strategy (add further information on target groups, narratives, value propositions, messages)
Deliverable reviewer (KWB)	May 2022 (M35)	Feedback on the 3 rd communication and dissemination strategy (further elaborate the messages, narratives, and value propositions following the further development of the digital solutions)
Arctik	June 2022 (M36)	Submission of the 3 rd communication and dissemination strategy (further elaborate the messages, narratives, and value propositions following the further development of the digital solutions)

4. Communication questions

The digital-water.city communication and dissemination matrix is formed by seven categories of questions. These questions underpin our approach to communication and dissemination activities. The Table 3 below summarises these questions, each of which is answered within this Communication and Dissemination Plan.

Table 3. DWC communication and dissemination matrix

Questions	Answered in chapter
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Why are we communicating and disseminating and for what purpose?

Who are we trying to reach?

What are the main messages to be delivered?

How will we get our messages across? Which tools for which audience?

When should communication and dissemination activities take place?

By whom will the action be undertaken? Who are the contributors?

Where will the communication and dissemination actions take place?

Section 6 – Aim of the communication and dissemination activities
Section 8 – Target audiences
Section 9 – Communication and dissemination content
Section 7 – Methodology & Section 11 – Communication & dissemination tools and channels
Section 10 – Timing of communication & dissemination activities
Section 4 – Communication and dissemination management process & Section 13 – Action plan
Section 11 – Communication and dissemination tools and channels & Section 12 – Action plan

5. Communication strategic principles

The following **set of strategic cross-cutting principles** will underpin the dissemination, communication and marketing efforts:

- 1) **Focus on the digital solutions rather than on “the project”.** The end goal of digital-water.city is to boost the integrated water management in five major European urban and peri-urban areas by the establishment and market uptake of a dozen of digital solutions. The digital solutions are the following ones for each city and each of them are associated with specific activities related with different work packages:

Table 4. List of digital solutions to be implemented in Berlin

MAIN CITY	DEMO ACTIVITIES IN CITIES	RELATED DIGITAL SOLUTIONS (DSs)
BERLIN	Improved operation and predictive maintenance of water wells [WP2]	DS7.1 Mobile application for predictive maintenance of drinking water wells
		DS.7.2 Forecasting tool for strategic planning and maintenance
		DS8. Forecasting tool for strategic rehabilitation planning of drinking water wells

	Identification of illicit connections in the stormwater network [WP2]	DS9. DTS sensor for tracking illicit sewer connections
		DS10. Sensors and smart analytics for tracking illicit sewer connections hotspots

Table 5. List of digital solutions to be implemented in Copenhagen

CITY	DEMO ACTIVITIES IN CITIES	RELATED DIGITAL SOLUTIONS (DSs)
COPENHAGEN	Sewer and WWTP management [WP2]	DS11. Sewer flow forecast toolbox
		DS12. Interoperable DSS and real-time control algorithms for stormwater management
		DS13. Web platform for integrated sewer and WWTP control

Table 6. List of digital solutions to be implemented in Milan

CITY	DEMO ACTIVITIES IN CITIES	RELATED DIGITAL SOLUTIONS (DSs)
MILAN	Safe water reuse for irrigation [WP1]	DS3. Near real-time Early Warning System for safe water reuse
		DS4. WebGIS platform for improved management and decision making in water reuse
		DS5.1 Active unmanned aerial vehicle for analysis of irrigation efficiency
		DS5.2 Match-making ICT tool between water demand for irrigation and safe water availability
		DS6. Serious game for the water reuse – carbon – energy – food – climatic nexus

Table 7. List of digital solutions to be implemented in Paris

CITY	DEMO ACTIVITIES IN CITIES	RELATED DIGITAL SOLUTIONS (DSs)
PARIS	Bathing quality [WP1]	DS1. Sensors for real-time in-situ E.coli and enterococci measurements

		DS2. Machine-learning based Early Warning System for bathing water quality
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Table 8. List of digital solutions to be implemented in Sofia

CITY	DEMO ACTIVITIES IN CITIES	RELATED DIGITAL SOLUTIONS (DSs)
SOFIA	Sewer and stormwater management [WP2]	DS14. Low-cost temperature sensors and analytics for real-time CSO and flooding monitoring
		DS15. Smart sewer cleaning system with HD camera and wireless communication

The communication activities will reflect the commercial and business nature of these digital solutions in water management. This will be most tangible in the design of the project website that will adopt a start-up functioning. More generally, the terminology used in communications should be carefully adapted to business and layman audiences. However, we want to ensure that our communication avoids “overselling” achievements and also relies on tangible outcomes, creation of knowledge and innovation of consortium partners.

- 2) **Stories** will be key in making the benefits of digital solutions tangible to their targets. The communication will focus on highlighting the positive aspects (services, benefits; added value to cities/companies/citizens) instead of the more ‘negative’ ones (threats from climate change, for example) through storylines that resonate with daily lives and working processes.
- 3) **Establish a recognizable and attractive brand identity.** Arctik wants to establish the service resulting from digital-water.city as a reference point for water digital solutions for European utilities, decision-makers, business organisations from beyond. A recognisable visual identity and brand has been developed for DWC, ensuring its suitability for both the project and commercial phases.
- 4) **Focus communication towards specific, targeted audiences.** Instead of large-scale communication, the focus will be set on reaching out to specific actors in European urban and peri-urban areas. Water utilities will be interviewed to test the unique selling propositions and narratives. While tailoring the dissemination plan for each story, Arctik will still ensure that the results are brought together in a coherent way to enable their exportation to areas outside their case studies.

- 5) **Build a sustainable network.** Our aim is to make digital-water.city a lighthouse that raises the awareness of European cities for a necessary digital transformation, and opening new market opportunities for DWC partners and European providers of digital solutions. The communication activities will therefore be built with the aim of recruiting members, working closely with the project partners to define the added value of joining the network.
- 6) **Leverage multipliers to maximise impacts.** Networks, organisations, relevant individuals or media have the potential to greatly boost the project communication efforts. These targets will be mapped and further identified throughout the project.

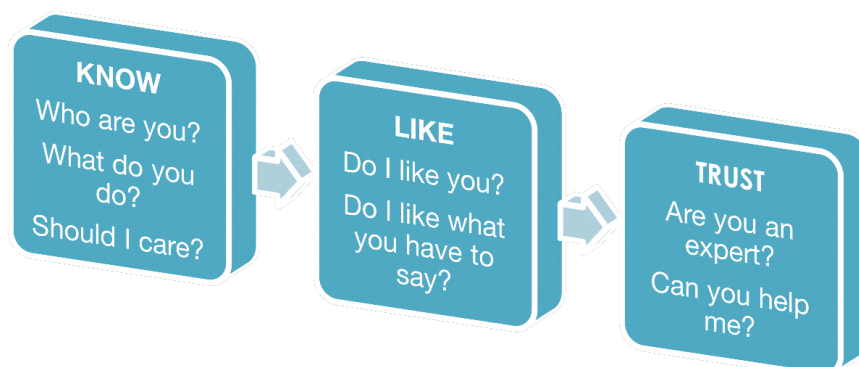
6. Methodology

This section of the communication strategy answers the question “how?”. Three intertwined steps will structure the communication activities over the project lifetime, help engage the audiences, and align internal and external communications.

6.1. Know | Like | Trust: three cumulative steps in digital-water.city

To facilitate the uptake of the digital-water.city findings into business and policy, Arctik proposes to follow a three-step approach. This approach, known to the world of sales and marketing, has also proven effectiveness for communication activities.

Communication activities will follow the “know – like – trust” approach. This approach means people will engage and do business with people they will first get to know, then like and finally trust.



Here is how this approach will work for digital-water.city.

6.1.1 A communication that “catches the eye” | KNOW

To raise awareness of the digital solutions and achieve their uptake, the target audiences must first know about the digital-water.city project. An attractive visual identity will provide consistency in the communication and catch the attention, helping to get the project known.

The first thing by which many people will get to know the digital-water.city project is the visual. The DWC visual should be clean, photo-oriented and telling the story of the project at a glance.

6.1.2 Provide attractive information | LIKE

Once our target groups have taken the step to know about digital-water.city, we need to provide more detailed information about the project and solutions. The target audience will start to like the project at this step. This can be done with a simple article, not too long, a video, a recorded interview, an infographic, an executive summary, etc. The story angle is important here to engage people.

6.1.3 Get deeper | TRUST

At this stage, the target is seriously interested and must be fed with the “serious stuff”. An important role is played here by scientific articles, proof points, as well as the consortium presence at workshops and events. The goal is here to get the audience to make some action. Therefore, some calls to action (CTA) will be added to the messages, such as ‘visit www.digital-water.city’, ‘meet us at event x’, whenever and wherever appropriate. This will make the audience engage with the project (and in some case, leave his/her contact details).

7. Target groups

As expressed above, carefully defining the target audiences is the key to getting our messages across. There are five target groups for digital-water.city:

- Water/wastewater utilities and city decision-makers,
- Stakeholders (e.g. business organisations, city networks and association, etc.),
- Scientific community,
- European and national policy makers,
- Citizens.

This section describes these target groups in more detail, outlining communication objectives, narratives and key messages for each. The initial set of narratives and key messages has been defined during the update of this strategy in M18 of the project, and will be further refined in the next update in M36. In M36 these will be complemented by specific value propositions, targeted at exploitation of the digital solutions and defined in collaboration with WP5, which will form the basis of the final communications campaign during the last phase of the project.

7.1. Water/wastewater utilities and city decision-makers

Water/wastewater utilities and city decision-makers are the direct beneficiaries and potential users of most of the DWC digital solutions. The **specific communication objective** in relation to this group is market uptake and replication of DWC technologies.

Practical goals

- 1) Communicate about the opportunities brought by digital solutions in the water management sector.
- 2) Encourage water/wastewater utilities and city decision-makers to use them in their own organisation.

As part of the first general assembly of digital-water.city in Berlin, members of the consortium were asked to give some examples of organisations that are associated with the different audiences, including water/wastewater utilities and city decision-makers. A list has been set with the results (Annexe 1 of this report), and has been updated in November 2020.

Key messages

Health protection

- Narrative: DWC offers a range of solutions that can support utilities and cities in making urban water infrastructures cleaner and safer, protecting citizens' health.
- Solution-specific messages:
 - DS1: DWC's fully automated ALERT smart sensor system actively monitors water quality in urban waters such as rivers and lakes to provide utilities with reliable, near-real-time information on microbial safety.
 - DS2: The DWC machine-learning-based early warning system allows utilities to track bacterial concentration in urban waters in real time – enabling reliable early forecasts of water quality.
 - DS3: The DWC early warning system for safe reuse of treated wastewater enables utilities to develop site-specific risk-based sanitation safety plans for targeted wastewater reuse in sectors such as agriculture.
 - DS8 and 9: DWC's smart solutions for tracking illicit sewer connections can help utilities pinpoint hard-to-find illicit connections so that they can be rectified, preventing potential health hazards linked to contamination of the stormwater network.
 - DS14: DWC low-cost temperature sensors for real-time combined sewer overflow (CSO) and flood monitoring are a cost-efficient and accurate way for utilities to monitor CSO events across the network in real-time, alerting to potential pollution and contamination of freshwater sources.

Performance and return on investment

- Narrative: DWC has developed a range of solutions that can help utilities operate more efficiently and cost-effectively, supporting decision making and helping unlock the maximum potential of infrastructure and human resources.
- Solution-specific messages:
 - DS4: The DWC WebGIS platform for improved decision making in water reuse helps utilities and their stakeholders make informed decisions by providing access to real-time georeferenced data on sewer networks, drinking water networks and land use.

- DS5: By combining drone technology, multispectral imaging and a match-making app to link up farmers with wastewater treatment plants, this DWC solution enables more efficient matching of treated wastewater supply with water demand for agricultural applications.
- DS7: The DWC mobile app for asset management of drinking water wells supports utilities' maintenance teams by providing access to data from different sources within a single interface – helping streamline maintenance processes to reduce opex and inform investment decisions.
- DS8 and 9: DWC solutions for tracking illicit sewer connections can reduce the manual effort required to isolate these connections, saving resources and cutting costs.
- DS11: By enabling more accurate forecasts using real-time data, the DWC sewer flow forecast toolbox supports integrated management of sewer networks and wastewater treatment plants – for greater efficiency and higher performance across both systems.
- DS12: DWC's interoperable decision-support system (DSS) and real-time control algorithms for stormwater management bring together data from sewer system sensors, wastewater treatment plants and flow forecasts in a single system – giving utilities a solid basis for decision making and the design of real-time control strategies.
- DS13: By providing data sharing and analytics to a range of water stakeholders, the interoperable SAMDUS web platform being developed by DWC enables integrated management of sewer systems and wastewater treatment plants – facilitating real-time coordinated decision making and enhancing efficiency.
- DS14: The DWC low-cost temperature sensors for real-time CSO and flood monitoring are a cost-efficient solution for utilities seeking to address issues caused by overflow in combined sewer systems.
- DS15: DWC's smart sewer cleaning system can save utilities time, energy and water by allowing sewer inspection and cleaning to be performed at the same time.

Public involvement

- Narrative: DWC offers solutions that can raise public awareness and appreciation of the water infrastructure in a city – giving a greater understanding for the work of utilities in maintaining these systems and encouraging more mindful use of water resources.
- Solution-specific messages:
 - DS6: Using gamification and real-world data, the DWC serious game on urban water reuse raises public awareness of the complex considerations cities must weigh up at the nexus of water availability, CO2 emissions, energy consumption and food crop productivity.
 - DS10: The DWC augmented reality app for groundwater visualisation shows users the otherwise invisible groundwater beneath their feet – opening up a

new appreciation among city-dwellers of where their drinking water comes from.

7.2. Stakeholders

The stakeholders' category includes:

- Mainstream and specialised media
- Multiplier organisations, networks and related projects with potential and interest to disseminate information about DWC through their networks like business organisations, city networks and associations (e.g. EUROCITIES, ICLEI), European-level associations and interest groups.

The **specific communication objective** in relation to this group is to raise awareness about DWC and engage for further dissemination.

Practical goals

- 1) Raise awareness/interest about digital-water.city and its digital solutions
- 2) Engage with them: request to further publish and dissemination information
- 3) Uptake of DWC solutions/apps by their members and audience

A first list of stakeholders has been set after the first general assembly of digital-water.city in Berlin (Annexe 2 of this report), and has been updated in November 2020.

Key messages

Health protection

- Narrative: DWC is developing a host of innovative solutions for urban water infrastructures that can make cities' water systems safer, cleaner and more ecological for the people who live there.
- Specific messages:
 - DWC solutions enable highly accurate, near-real-time monitoring and alerts for bathing water quality in urban areas – meaning city rivers and lakes can become safe for swimming and other leisure pursuits.
 - DWC solutions can make cities greener by facilitating greater reuse of urban wastewater for applications such as agriculture: through smart water quality monitoring and systems linking stakeholders in need of water with the treatment plants that can supply it.
 - DWC solutions can minimise pollution events and reduce the risk of freshwater contamination by addressing issues in sewer systems that lead to overflows.

Performance and return on investment

- Narrative: DWC offers solutions that can help cities do more with limited budgets, delivering better return on their investment in the urban water infrastructure.
- Specific messages:

- DWC offers data-driven solutions to support cities and water utilities in their decision-making – using real-time data captured from across the water infrastructure combined with innovative AI and machine-learning techniques to improve forecasts and model potential scenarios.
- DWC solutions can improve efficiency by enabling integrated management of sewer systems and wastewater treatment plants – supporting more accurate forecasts, enhancing system performance and strengthening coordination across stakeholders.
- DWC offers a number of solutions to improve the efficiency of water infrastructure operations and maintenance – from drinking water well management to sewer cleaning.
- Using technologies such as connected digital sensors, DWC solutions can help cities more rapidly identify problems in the sewer system so that they can take action to address them.
- DWC solutions support greater resource efficiency for city water infrastructures by facilitating reuse of treated wastewater for applications such as agriculture.

Public involvement

- Narrative: DWC is developing solutions that connect citizens with the water infrastructure in their cities – raising awareness around urban water management and conservation.
- Specific messages:
 - DWC is developing an interactive data-driven game that raises awareness of the interlinkages between water availability, carbon emissions, energy consumption and food production – users play the role of a city mayor who must decide how to optimise water reuse without depleting economic and environmental resources.
 - A DWC app raises awareness about the role of groundwater in providing a city's drinking water, using augmented reality to allow users to visualise the groundwater flows beneath their feet.

7.3. Scientific community

The third audience is the scientific community who will use the information and results to exchange on urban water management challenges, building on the DWC findings and results. This scientific community refers to research community working in the field of digital technologies and water related concerns.

The **specific communication objective** in relation to this group is exploitation of results in further scientific discussions and research.

Practical goals

- 1) Make the scientific community aware about the main findings and results brought by the DWC project

- 2) Engage the scientific community on the DWC findings and results and get the feedback of the community for further improvement

A first list of scientific organisations has been set after the first general assembly of digital-water.city in Berlin (Annexe 3 of this report), and has been updated in November 2020.

Key messages

Health protection

- Narrative: DWC is developing and trialling innovative solutions to demonstrate the potential of digital technology and data in to provide accurate, timely information to city water utilities in support of public health protection. Technologies in focus include fully automated smart sensors, artificial intelligence/machine learning, open data platforms, early warning systems, and multispectral imaging.
- Specific messages: these messages will be developed once the scientific results are clearer, for the next update of the communication strategy in M36.

Performance and return on investment

- Narrative: DWC is developing and trialling innovative solutions to demonstrate the potential of digital technology and data to support water utilities in boosting infrastructure performance and delivering better return on investment. Technologies in focus include smart sensor systems, artificial intelligence/machine learning, open data platforms, decision-support systems, predictive analytics and robotics.
- Specific messages:

Public involvement

- Narrative: DWC is developing and trialling innovative solutions to demonstrate the potential of digital technology and data to enhance the awareness and involvement of citizens in their cities' water infrastructures.
- Specific messages: these messages will be developed once the scientific results are clearer, for the next update of the communication strategy in M36.

7.4. European and national policy-makers

The fourth target audience are the European and National policy-makers: the DWC results will lead to the formulation of policy recommendations that will be disseminated towards the policy audience who will make decisions on the enabling policy frameworks. More precisely, they refer to:

- National Ministries/Departments of Environment/Science & Technology
- European Commission DG DIGIT, ENV, REGIO, AGRI, GROW

- MEP Water Group, Digital Agenda Intergroup, Water JPI
- MEPs active in the project's issue Areas
- European level associations, such as Water Europe, DIGITALEUROPE, EIP Water, EIP Agri, EIT Digital

The **specific communication objective** in relation to this group is the implementation of the DWC policy recommendations for short- to medium-term policy developments in the EU and case study countries.

Practical goals

- Raise awareness about DWC project and its needs in terms of policy making.
- Formulate policy recommendations that address these needs.
- Communicate them to the right policy-makers at the right time.
- Reaching some changes in the EU and national policy-making.

A first list of European and national policy makers has been set after the first general assembly of digital-water.city in Berlin (Annexe 4 of this report), and has been updated in November 2020.

Key messages

- Narrative: DWC is developing solutions that can help European cities make their urban water infrastructures greener, more efficient and more beneficial to citizens' health – improving quality of life, making more effective use of public resources, and supporting compliance with local, national and EU-level regulations. Unlocking these benefits will require the right policy and regulatory framework.
- Specific messages:
 - An enabling data framework is key to unlock the potential of digital water technology for the water sector in areas such as demand-side management, including clarity on data governance and data protection.
 - Robust cybersecurity will be essential for the successful deployment of digital solutions in the water sector, and a clear governance framework will be essential.
 - Support for capacity building may be needed in some cases to support local utilities in leveraging digital technology to meet EU and other obligations.
 - Digital water governance can support policy objectives in areas such as health protection, climate change, environmental and circular economy policies, as digital solutions support water reuse and conservation, enable more efficient infrastructure management and reduce pollution and contamination.
 - Participatory approaches in digital water governance can support the emergence of innovative partnerships and successful initiatives – so decision makers should facilitate multi-stakeholder dialogue for development of local digital solutions.

- Larger national and EU-level regional development and innovation schemes should prioritise support for the digital water transition for local actors that might lack the institutional or financial capacity to act alone.

7.5. Citizens

The last category are citizens who will directly benefit from DWC mobile applications but also from the environmental and societal benefits brought by the DWC solutions.

The **specific communication objectives** in relation to this group are to make the public aware about urban water issues, to foster the public use and acceptance of digital solutions and DWC apps.

Practical goals

- 1) Raise awareness about urban water issues and solutions brought by digital-water.city to tackle them.
- 2) Engage with the citizens: find out their interests and needs and promote the digital-water.city solutions accordingly.
- 3) Uptake of DWC apps by citizens: business development and related communication & dissemination actions.

Key messages

Health protection

- Narrative: A city's water infrastructure is essential to the health of those who live there: DWC is using digital technology to make cities' water systems cleaner, greener and healthier for all citizens.
- Specific messages:
 - DWC solutions will make it possible for city-dwellers to have up-to-the-minute information on whether swimming spots in their local river or lake are safe for bathing.
 - DWC solutions support safe reuse of treated water for applications such as agriculture, putting cities' valuable water resources to good use.
 - DWC solutions can help identify and prevent issues in urban sewer systems that cause overflows and flooding, reducing the risk of pollution events and contamination of local freshwater sources.

Performance and return on investment

- Narrative: Efficient operation of a city's water infrastructure can be challenging given limited resources. DWC solutions support city utilities in boosting the performance of the water system and getting a greater return on investment, so that public money is well spent.
- Specific messages:

- DWC solutions help utilities make better forecasts about how water flows in sewers and wastewater treatment plants, so that they can manage processes more efficiently.
- Using smart sensors to capture data, and techniques like machine learning and predictive analytics to process it, DWC solutions provide cities with the data and forecasting they need to inform daily operations and long-term planning.
- DWC solutions support coordination and collaboration between the teams managing different stages of the water cycle, helping utilities make more informed and efficient decisions.
- DWC solutions use digital technology and data to support operations and maintenance work of city utility teams, helping them to do more with limited resources.

Public involvement

- Narrative: As a city's water system is so important for its citizens' health and well-being, it is important that we as citizens understand more about how our water infrastructure works. DWC offers solutions that can raise citizens' awareness of the water infrastructure using innovative digital technology like AR and gamification.
- Specific messages:
 - A DWC serious game puts users in the shoes of a city decision maker who must decide how to balance the challenges of water availability, CO2 emissions, energy consumption and food production – increasing citizens' understanding of the complex considerations that are involved in managing the urban water infrastructure.
 - A DWC mobile app uses augmented reality to allow users to visualise the groundwater flows beneath their feet – raising awareness of this valuable resource that is usually invisible.



Table 9. Target audience matrix

Target audiences	Objectives	KNOW, LIKE, TRUST	Actions	Tools and channels
Target audience 1 Water/wastewater utilities and city decision-makers	Market uptake/replication of DWC technologies	Get known + build likeability	Communicate about the opportunities brought by digital solutions in the water management sector	Targeted messages on DWC Website and Social Media Marketing material Video contents spread online Use of multipliers and synergies to spread the messages and info
		Build trust	Encourage water/wastewater utilities and city decision-makers to use them in their own organisation	Engaging messages and contents through DWC website and social media Roadshows Presence at water/digital policy conferences Presence at brokerage and pitching events Policy recommendations
Target audience II Stakeholders (media and multipliers)	Raise awareness about DWC and engage for further dissemination	Get known + build likeability	Raise awareness/interest about digital-water.city and its digital solutions	Targeted messages on DWC website and social media Marketing material Video contents spread online

**Target audience III
Scientific
community**

			<p>Press and multipliers relations (direct contacting, networking, in-bound marketing)</p> <p>Use of the EC channels and tools to spread messages</p>
	Build trust	Engage with them: request to further publish and disseminate information	<p>Roadshows</p> <p>Presence at water/digital policy conferences</p> <p>Presence at brokerage and pitching events</p>
Exploitation of results in further scientific discussions and research	Get known + build likeability	Make the scientific community aware about the main findings and results brought by the DWC project	<p>Targeted messages on DWC website and social media</p> <p>Marketing material</p> <p>Video contents spread online</p> <p>Use of multipliers and synergies to spread the messages and info</p>
	Build trust	Engage the scientific community on the DWC findings and results and get the feedback of the	Presence at Water/digital policy conferences

		community for further improvement	Engaging message spread by the mean of direct contacts and by the mean of multipliers and synergies
Target audience IV European and national policymakers	Implementation of the DWC policy recommendations for short- to medium-term policy developments in the EU and case study countries	Get known + build likeability	<p>Raise awareness about DWC project and its needs in terms of policy making</p> <p>Targeted messages on DWC website and social media</p> <p>Spread of messages on the EC channels and communication tools and use of the multipliers and synergies</p>
		Build trust	<p>Communicate the policy recommendations and try to get engagement by the EU and national policymaking</p> <p>Release of the policy brief online</p> <p>Promotion of the policy brief on the DWC website and social media</p> <p>Specific videos</p> <p>Distribution by partners at some EU a national policy events</p>
Target audience V Citizens		Get known+ Build likeability	<p>Raise awareness about urban water issues</p> <p>Targeted messages on DWC Website and Social Media</p> <p>Marketing material</p> <p>Video contents spread online</p>



			Use of multipliers and synergies to spread the messages and info
	Build trust	Foster public use and acceptance of digital solutions and the uptake of DWC apps	Roadshows (“digital playground”) Presence at Water/digital policy conferences Digital arts and science festivals

To summarize the information, this table associates each tool or channel with the target audiences for which it will be used.

Table 10 –Tools and channels per target audience

Tools & Channels	Water/wastewater utilities and city decision-makers	Stakeholders	Scientific community	European and national decision makers	Citizens
Website	✓	✓	✓	✓	✓
Social media: Twitter & LinkedIn	✓	✓	✓	✓	✓
Digital marketing materials	✓	✓	✓		✓
Printed marketing materials	✓	✓	✓		✓
Videos	✓	✓	✓	✓	✓



Roadshows	✓	✓			✓
Conferences	✓	✓	✓	✓	✓
Digital art festivals					✓
Brokerage and pitching events	✓	✓			
Media relations		✓			
Multipliers & synergies	✓		✓	✓	✓
EC channels & tools		✓		✓	
Policy briefs and policy recommendations	✓			✓	

8. Dissemination content

The content will evolve as the project progresses, as new digital solutions in Berlin, Copenhagen, Milan, Paris and Sofia become demonstrated and tested. At the beginning, the content will primarily focus on the expected benefits of each digital solution. The focus will increasingly shift to the concrete outcomes of each digital solution and their market uptake in all over the EU.

As each digital solution of digital-water.city is very different, specific messages linked to the values, interests and motivations of the target groups will be developed. We aim to develop solution-specific value propositions, stories, and business model canvas.

8.1. What are the DWC value propositions?

Definition: A value proposition is the reason why customers turn to one service over another. It solves a customer problem or satisfies a customer need. Values may be quantitative (e.g. price, speed of service) or qualitative (e.g. design, customer experience).

Let's note here that WP6 will collaborate with the WP5 in order to establish the key value propositions (Deliverable 5.5).

8.2. Dissemination content per WP

Our dissemination actions will reflect the strategic milestones of the project and our aim is to make sure that all relevant outcomes resulting from the different WPs are communicated to their targets.

The information will be communicated to all the target groups. However, as said earlier, the messages will be tailored to fit the characteristics and needs of each audience and the best channels will be chosen in order to reach them in the most relevant way.

In order to communicate these contents, it is important to have an overview of the different outputs resulting from the project over time. This section identifies the different Work Package activities and outputs that need dissemination.

The key deliverables/milestones identified here below have also been included in the collective action plan where their implementation will be monitored (Section 13).

Table 11. Dissemination content per WP

Work package	Key deliverable or milestone	Is there something to communicate?	Timing
WP 1 – Improved decision making for human health protection	D1.1 – Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure	<u><i>Is there something to communicate ?</i></u> YES About the benefits of the ALERT system for online bacterial monitoring	18
	D1.2 – Early warning and improved decision support for health protection in water reuse and bathing water – 1 st version	<u><i>Is there something to communicate ?</i></u> YES About the implementation of the machine-learning based Early Warning System for bathing water quality (DS2) and near real-time Early Warning System for safe water reuse (DS3)	18
	D1.3 – Early warning and improved decision support for health protection in water reuse and bathing water – final version	<u><i>Is there something to communicate ?</i></u> YES About the implementation of the machine-learning based Early Warning System for bathing water quality (DS2) and near real-time Early Warning System for safe water reuse (DS3)	36
	D1.4 – Summary of experience on DS4 WebGIS utilization and mobile Early Warning System for water reuse	<u><i>Is there something to communicate ?</i></u> YES About the experience of WebGIS and mobile Early Warning System (DS4) for water reuse as digital solutions	30
WP 2 – Maximized performance and return on investment of water infrastructures	D 2.1 – Implementation plan of each digital solution and methodology for quantification of the benefits provided by digitalization	<u><i>Is there something to communicate ?</i></u> YES About the implementation plan of each digital solution	12
	D2.2 – Performance and ROI of urban water systems: benefits obtained through the deployment of digital solutions	<u><i>Is there something to communicate ?</i></u> YES About the benefits gained with the deployment of digital solutions	30

	D2.3 – Technical documentation of the digital solutions and key requirement for successful deployment – 1 st version	<u><i>Is there something to communicate ?</i></u> NOT YET	18
	D2.4 – Technical documentation of the digital solutions and key requirement for successful deployment – final version	<u><i>Is there something to communicate ?</i></u> YES About the features of each digital solution (DS5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15)	36
WP3 – Innovative and innovation friendly modes of ICT governance, policy and public involvement	D3.1 Guiding protocol for the ICT governance assessment	<u><i>Is there something to communicate ?</i></u> NO	6
	D3.2 Policy matrix	<u><i>Is there something to communicate ?</i></u> YES About the summary of the results from screening Digital, Data and Water Policies	12
	D3.3 Recommendations for policy developments (targeted at the EU level)	<u><i>Is there something to communicate ?</i></u> YES About the recommendations to EU institutions that will include a list of priority policies and a list of actions with indicative timeframes for EU and case-study countries	40
	D3.4 Perception, acceptance and use of digital solutions – 1 st version	<u><i>Is there something to communicate ?</i></u> NOT YET	18
	D3.5 Perception, acceptance and use of digital solutions – final version	<u><i>Is there something to communicate ?</i></u> YES About project benefits for public involvement, environment and	30

		education, with a particular focus on the solutions developed for Berlin, Milan and Paris, the case studies for which apps targeted at citizens will be developed (DS 16, 17, 18)	
WP4 – Interoperable and secure flow of information	D4.1 – Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions	<u><i>Is there something to communicate ?</i></u> NO	12
	D4.2 RIDB & RRMS	<u><i>Is there something to communicate ?</i></u> NO	24
	D4.3 Security assessment of cyber-physical flow of information in strategic, tactical and operational dimensions regarding DWC digital solutions	<u><i>Is there something to communicate ?</i></u> NO	36
	D4.4 Semantic interoperability design requirements	<u><i>Is there something to communicate ?</i></u> NO	18
	D4.5 DWC water value chains ontology	<u><i>Is there something to communicate ?</i></u> NO	30
	D4.6 Semantic interoperable middleware – 1 st version	<u><i>Is there something to communicate ?</i></u> NO	18
	D4.7 Semantic interoperable middleware – final version	<u><i>Is there something to communicate ?</i></u> NO	36
	D4.8 Cyber-physical systems protection training schemes	<u><i>Is there something to communicate ?</i></u> YES About the safety of digital solutions with their cyber-physical systems protection accreditation and training schemes	42
WP5 – Transfer and	D5.1 Plan for exploitation of DWC results	<u><i>Is there something to communicate ?</i></u> YES	6

exploitation of DWC solutions		About the potential outcomes of DWC digital solutions	
	D5.2 CoP reports: Documentation of events and achievements	<u>Is there something to communicate ?</u> YES About the main achievements of the DWC Community of Practices (CoP)	18
	D5.3 Quadruple helix brief on market opportunities	<u>Is there something to communicate ?</u> YES About the planning of the roadshows and initial communication activities	7
	D5.4 Mapping of barriers for implementation cyber-physical water systems	<u>Is there something to communicate ?</u> No	36
	D5.5 Business plans for DWC spin-offs and their IPR distribution	<u>Is there something to communicate ?</u> No	30
WP7 – Project management	D7.1 Consortium Agreement and Project Management Handbook	<u>Is there something to communicate ?</u> No	1
	D7.2 Data management plan	<u>Is there something to communicate ?</u> No	6
	D7.3 General Assembly and Steering Committee minutes	<u>Is there something to communicate ?</u> No	18
	D7.4 IPR and Innovation Management	<u>Is there something to communicate ?</u> No	12
	D7.5 Synergies inside the portfolio of SC06-11-2018	<u>Is there something to communicate ?</u> Yes About the synergies between DWC and other projects	12
	D7.6 Report on synergetic activities inside of the portfolio of SC05-11-2018	<u>Is there something to communicate ?</u> Yes About the synergies between DWC and other projects	36

WP8 – Ethics requirements		<u>Is there something to communicate ?</u> No	
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8.3. Dissemination content per digital solution

Which stories work best? A good story consists of a succession of events with a beginning, a middle and an end, a scene setter and a plot, a climax and a conclusion, all of this in a rich context. It is hence more than a list of results achieved. A good story is one with which others can identify, with the project content as a basis, and focused on a person (for example: the researcher). Such stories also allow your message to be conveyed through shared values that will touch people's hearts and provoke emotion, and the promise of a better future.

The digital solutions are at the heart of the project. Therefore, developing specific messages, value propositions and stories linked to the motivations of those who use these digital solutions is important. The development of business model canvas³ for each case will also be considered.

While the messages to be communicated will evolve with the progress of the project, a first set of messages/storylines will be developed early on in the project. **ARCTIK will coordinate the process with each digital solution during the winter 2019**, in parallel with the website content creation.

9. Timing of activities

As mentioned above, our dissemination and marketing activities will be planned in such a way as to respect the strategic milestones of the project and to mirror the tasks and outcomes of the different WPs.

The activities will follow the project design, which roughly divides the project into two phases, each of them lasting between 18-24 months:

- 1st phase: first development of the 15 digital solutions (from the 1st month to the 18th)
- 2nd phase: second development of the 15 digital solutions (from the 18th month to the end of the project)

During the first phase, our activities will focus on establishing a steady communications process and making the project and its projected impacts known among relevant target audiences. This includes developing the website, mapping relevant target groups, defining messages and key words per target groups, and social media actions. This present communication strategy will be updated on month 18th.

³ For more information on the Business Model Canvas approach, visit this link: <https://www.alexandercowan.com/business-model-canvas-templates/>

During the second phase, we will perform communication actions and campaigns aiming to generate interest towards the concrete digital solutions and their uptake by key audiences, mostly stakeholders. This same document will be updated on month 36th. It will be the core basis of the launching of a targeted and systematic regional, cross-sectorial and multichannel digital on the digital technologies demonstrated at the project’s demo sites, communicating their transferability and applicability to European cities. Arctik will work with WP5 to identify the target markets and the key selling propositions. Media and multiplier outlets will be approached with sponsored articles and Op-eds. Digital metrics will be used to ensure monitoring of the actions and critical evaluation. To maximise exposure, we aim to time the campaign launch during an existing event aimed at cities, such as the European Week of Regions and Cities.

10. Tools and channels

A well-balanced mix of on-line and offline tools and channels will be used to reach out target audiences. The below table summarises the different tools/channels, which are further detailed in the sections below. The foreseen related main actions listed below are also included in the collective action plan (Section 12).

Table 12. Summary table of online and offline communication tools and channels

TOOLS & CHANNELS	ONLINE	OFFLINE
Brand identity	✓	✓
Website	✓	
Social media: Twitter & LinkedIn	✓	
Digital marketing materials	✓	
Printed marketing materials		✓
Videos	✓	
Web banners	✓	
Roadshows		✓
Conferences		✓
Digital art festivals		✓
Brokerage and pitching events		✓
Media relations	✓	
Multipliers & synergies	✓	✓
EC channels & tools	✓	✓

Policy briefs and policy recommendations	✓	✓
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10.1. Logo and visual identity

The design of the logo tells the story of the project at a glance: the buildings represent the urban side of the project and waves represent the water component. The different blue colours are also meant for people to make the association with water. Furthermore, the name of the project and the URL of the website (without dash) are part of the logo for an immediate understanding.

Logotype on white background



Figure 1. DWC logo

The layout and colours associated with this identity are applied to the website and all subsequent communication materials, including report and presentation templates.

A graphic charter will be provided to the partners in order to ensure the appropriate use of the logo and the visual identity more generally.

All dissemination materials should acknowledge the EC funding with the use of the European emblem (flag) and a sentence that acknowledges the EU support.

10.2. Website

The website has been designed in accordance with the project’s visual identity (see previous section) and by making use of attractive visuals to enhance the visual appeal of the website.

Instead of a classical project website focusing on the life of the project, Arctik has worked out a scroll-down webpage gathering all necessary information at a glance. Focus is put on developing fresh and appealing webpages for each of the 15 technologies and 5 demo sites

to ensure a strong and direct visibility of the digital solutions. These pages are tailor-made depending on the solution (layman and business style) using interactive infographics.

After clicking on "Dive into Digital Water City" on the landing page, the user gets some answers to questions like "What?", "Why?" and "Where?", presenting then the overall project. An overview of some of the digital solutions and 5 demonstration cities, as well as the latest news, appear and give a more dynamic content to this landing page:

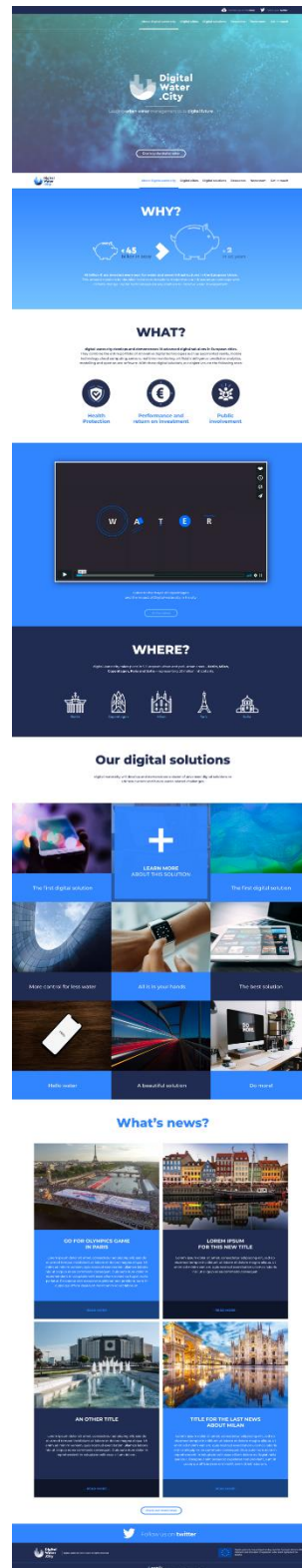


Figure 2. Homepage of the DWC website

News posts and interviews with CoPs network members are examples of tools to keep the target audiences engaged and create in-bound marketing. An internal communication and exchange platform has been set up.

As the project unfolds and more information about the 15 digital solutions becomes available, Arctik plans to update the website in order to further emphasize them.

In a nutshell, the menu is the following one:

- 1) About digital-water.city**
 - a) At a glance
 - b) Background and objectives
 - c) Meet the team
- 2) Digital cities**
 - a) Berlin
 - b) Copenhagen
 - c) Milan
 - d) Paris
 - e) Sofia
- 3) Digital integration**
 - a) Governance and public involvement
 - b) Cybersecurity
 - c) Market uptake
- 4) Digital solutions**
- 5) Resources**
- 6) Newsroom**
- 7) Get in touch**

10.3. Social media

Arctik has a particular interest in activating influential social media accounts as these can act as effective multipliers for digital-water.city. After an initial research for best social media channels for our target audiences, we have decided to use Twitter and LinkedIn.

Twitter is widely used in B2B and B2C communications and allows to reach a large number of people. Experience from previous related projects indicate that many relevant players for digital-water.city can be reached via Twitter. This is why a dedicated Twitter account has been created on the very first day of the project (1st of June, 2019): @digitalwater_eu. A dedicated twitter hashtag #digitalwatercity has also been created to amplify the dissemination of news and updates from the project.

LinkedIn is particularly appropriate when it comes to reaching leaders in state and private organisations. Thus, this is an appropriate digital tool for water/wastewater utilities and city decision-makers or more broadly, stakeholders. In a nutshell, LinkedIn gives the possibility for employees and employers to create profiles and “connections” to each other that are

professionally related. Therefore, any member of the network can invite anyone to become a connection. Arctik also created a digital-water.city LinkedIn account.



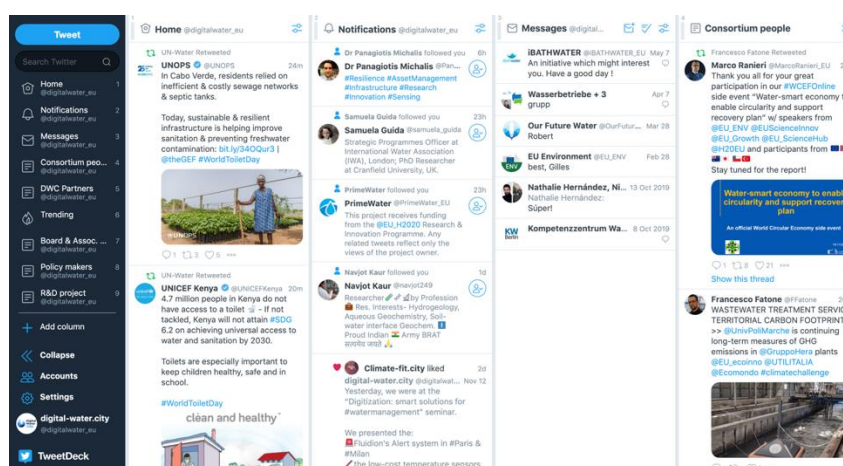
Figure 3. Screenshot of DWC Twitter account

In order to build and grow the audience bases on the two social media, the following actions have been started or are foreseen:

- Map partners' Twitter and LinkedIn accounts to follow them with the project account and ask the partners to follow the project's accounts back.
- Ask partners to use the project hashtag as often as possible and retweet updates on the project published by Arctik and other partners. The relevant partners' publications will also be retweeted on the project's social media accounts.
- Map relevant accounts on the basis of our target audiences (water/wastewater utilities and decision-makers, stakeholders, scientific community, European and national decision-makers, citizens) and establish and manage lists on Tweetdeck per type of accounts for Twitter. These accounts will be selectively tagged in the posts Arctik will progressively publish to maximise dissemination efforts.

- Identify and use popular hashtags (e.g. #digitalwatermanagement, #digitalwaterfuture, #ResearchImpactEU) in relation to the projects' area of activity.
- Establish personal relations with the communication officer behind the partners' accounts and provide with 'ready to publish' content and visuals on both social networks. DWC initiated contact with utilities. A meeting will be scheduled in December 2020-January 2021 to establish working relationship.
- Follow/Like similar social media accounts to attract these to follow back.
- Several tools will be set up in order to monitor the activity and reassess the projects' positioning: Twitter analytics, Tweetchup, and Tweetdeck for Twitter; LinkedIn Campaign Manager.

Figure 2 Tweetdeck DWC

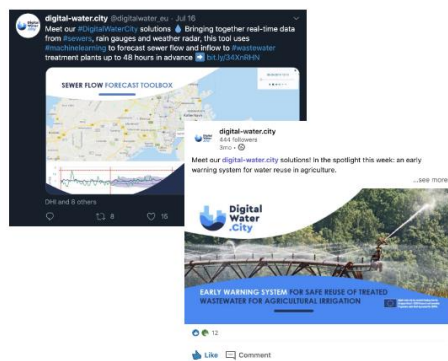


Regarding the sponsoring of content on social networks, Arctik considers doing so on Twitter only. Our experience has indeed proved that sponsored content on Linked is not efficient enough in reaching key audiences.

Arctik and KWB are in charge of creating and managing the social media accounts and related tools. Arctik regularly contacts the partners in order to obtain some content to share on the project's social media. Such publications promote the day-to-day project's progress and outcomes (Community of practice, workshops, promotion of DWC's work, publication of the deliverables...). In addition, Arctik also started implementing social media campaigns. The first one took place between May and August 2020, and focused DWC's digital solutions (figure 3).

Figure 3 Social media campaign on DWC's digital solutions

Digital solutions campaign: May - August 2020



As per month 18, the consortium published 98 tweets and 38 LinkedIn posts. A more detailed account of social media results can be found in point 11 "Monitoring and evaluation of activities".

10.4. Printed marketing materials

A **leaflet** has been developed by Arctik in month 13. The aim of this leaflet is to market the digital solutions to the various stakeholders, allowing a fast understanding of the aims, services, benefits, etc. In accordance with the grant agreement, Arctik will avoid as much as possible to generate printed materials and will favor digital means. The leaflet will therefore first be available in a digital format online. If necessary and at their request, the DWC partners will receive an adequate number of copies for distribution at key events.

Posters will be mainly used in events organised by the project or in external conferences, workshops, seminars or others. These posters will be prepared as necessary.

Some **roll-ups** have already been developed (and reused) for display at project events.

10.5. Audio-visual marketing materials

The following videos are foreseen:

- 1) An **animated video** (to be produced between month 18 and month 20) to explain the added value of digital solutions and to introduce the overall project. This video will be on the landing page of digital-water.city. This video will reach all the audiences, but being a bit specific, will mostly target the Water/wastewater utilities and city decision-makers, the Stakeholders and the Scientific community.
- 2) Five **short videos – one per city** (Berlin, Copenhagen, Milan, Paris, Sofia): these videos will include testimonials from stakeholders regarding their needs and especially the benefits they have with digital solutions in their sector. These videos serve as an easy and dynamic way to target the different audiences with key messages and calls for

action. All audio-visual materials will be uploaded to the DWC website and Vimeo and will be widely disseminated via the partners' communication channels.

- 3) Very short **20-30-second marketing videos**, focused on cities and/or water solutions, will be developed and directed at the general public.
- 4) Videos dedicated to **policy dissemination**.

10.6. Online visuals

Attractive online visuals will be designed throughout the project for various promotional activities and campaigns on social media. More exactly, Arctik will work out an **interactive infographic** that will show the advantages of digital solutions for each sector within the water management cycle.

10.7. Roadshows and events

Arctik will identify opportunities to co-promote the service with parallel EU initiatives and strategically integrate DWC into highly visible EU events and programmes to increase the visibility.

A 2-day roadshow in each of the demonstration cities is planned to engage citizens as well as national/regional stakeholders around digital water issues while showcasing the apps developed to foster public involvement (in T3.3.2). Roadshows will be organised in major EU cities when a relevant event takes place in one of the 5 demonstration sites like, for example, "Paris Plages" in Paris. At these events, we will hold a stand, distribute materials and show videos.

It will be set up as an engaging communication "digital playground" (a showroom) where citizens can test the apps and learn the benefits of digitization for a variety of water management issues such as water reuse, drinking water production or sewer management. The "digital playground" will be accompanied by a series of dissemination workshops aiming at creating synergies between DWC digital solutions and local policies/initiatives, as well as providing a learning space for stakeholders. If possible, livestreaming will be organised to offer the possibility to participate to the workshops remotely. DWC local partners will co-design the event in order to ensure the full involvement of cities and key local players. The events will take place in the local languages of each city and media representatives will be invited. The detailed focus of the showrooms and workshops will be tailored by city.

10.8. Conferences

Participating in conferences is a classic and effective mean to approach stakeholders. Presenting at events and strategically placing stands to catch stakeholders' attention are two promotional methods that will be sought. In addition to water events, we plan to attend important digital tech and policy events (e.g. EU CeBIT Conference) in order to foster synergies between water and digital fields.

The table below provides a non-exhaustive list of events where the project plans to participate in. New upcoming conferences will be screened at each update of the Communication Strategy (see table 13).

A well-coordinated event participation will be essential to ensure the project's visibility to the target audiences. **Project partners will inform Arctik about their events** (ad-hoc or via the sectoral action plans when known in advance), so that Arctik can fully support their participation e.g. in terms of promotional activities or provision of relevant materials to be handed-out about the project. A list of events has already been created on the cloud⁴. Each partner should fill up the events where he planned to join and inform KWB and Arctik.

⁴ Under Communication/Event [on the cloud](#)

Table 13 Events and conferences

Title of the event	City	Country	1_Start date	1_End date
IWA Resource Recovery Conference	Venice	Italy	2019/09/08	2019/09/12
LESAM Asset Management	Vancouver	Canada	2019/09/23	2019/09/27
TCRI workshop	Taipei	Taiwan	2019/10/02	2019/10/02
FIWARE Summit	Berlin	Germany	2019/10/24	2019/10/24
Aquatech Forum	Amsterdam	Netherlands	2019/11/04	2019/11/05
Ecomondo	Rimini	Italy	2019/11/05	2019/11/08
Making Climate Services a reality in Europe	Brussels	Belgium	2019/11/13	2019/11/13
5th EIP Water Conference	Zaragoza	Spain	2019/12/12	2019/12/12
BRIDGE event	Brussels	Belgium	2020/01	2020/01
Water Europe	Brussels	Belgium	2020/03/18	2020/03/18
World Water Day	Sofia	Bulgaria	2020/03/23	2020/03/23
IWA webinar digitalization risk	Online	/	2020/04/01	2020/04/01
EGU 2020	Vienna	Austria	2020/05/03	2020/05/08
re:publica	Berlin	Germany	2020/05/06	2020/05/08
IoT week	Dublin	Ireland	2020/06/01	2020/06/05
ICT4WATER event	Online	Online	2020/06/16	2020/06/16
IWA EcoSTP	Milan	Italy	2020/06/22	2020/06/26
Hydroinformatic conference	Mexico DF	Mexico	2020/07/26	2020/07/30
International Conference Urban Drainage	Melbourne	Australia	2020/09/06	2020/09/11
INFRASPREE	Berlin	Germany	2020/09/09	2020/09/10
ECSI CPS4CIP'20	Online	/	2020/09/14	2020/09/18
FIWARE domain days	Online	/	2020/09/17	2020/09/17
Digital around the world	Online	Online	2020/10/20	2020/10/20
Cybersecurity for Water Security in the COVID-19 Era	Virtual	USA	2020/10/21	2020/10/21
CIO cleantech	Online	Online	2020/11/11	2020/11/11
IWA Digital Water Summit	Bilbao	Spain	2020/11/30	2020/12/03
ICT 2020	Cologne	Germany	2020/12/01	2020/12/03
EauMega 2020	Paris	France	2020/12/01	2020/12/04
World Water Tech	Virtual	UK	2021/02/23	2021/02/24
Annual Indo-German Forum: Cities and Climate	Virtual	Germany	2021/03/16	2021/03/17
12th Eastern European Young Water Professionals Conference - Water Research and Innovations in Digital Era	Riga	Latvia	2021/03/31	2021/04/02
11th IWA Efficient Urban Water Management Conference	Bordeaux	France	2021/04/07	2021/04/09
EGU General Assembly 2021	Online	/	2021/04/19	2021/04/30
World Water Congress 2021	Copenhagen	Danemark	2021/05/09	2021/05/14
IWA Conference Wastewater, Water and Resource Recovery	Online	/	2021/05/16	2021/05/19

SimHydro 2021	Nice	France	2021/06/16	2021/06/18
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10.9. Digital art festivals

Besides engaging stakeholders at industry and policy events, citizens will be reached out at digital events, such as digital arts festivals and science festivals (e.g. Nuits Sonores in France, Sónar+D in Barcelona) where we aim at introducing the DWC technologies to interested public and, among other, inspiring young people around water issues and the possibilities that digital offers. In total, we will attend 8 events per year.

10.10. Brokerage/networking events

To further facilitate the market uptake of the DWC solutions, Arctik will map and coordinate the attendance of partners in relevant brokerage and pitching events around Europe. We will look in particular into events organised by organisations such as WssTP (Water Market Europe), EIP Water, EASME (Investor's café) and other pertinent brokerage/networking events organised during conferences and trade fairs. As for the conferences, the partners must indicate the events they are planning to attend in the cloud⁵ and inform Arctik and KWB.

10.11. Media relations

We will map city and national media contact points and undertake soft-sounding⁶ and other communication techniques to maximise the service positioning. Among others, e.g. Euronews Business Planet will be targeted.

An initial media mapping for the DWC's main topics related news outlets will be performed at the early stages of the project. Specific media mapping(s) are performed every time a result or a project impact arises. We will aim at having our press releases published especially in local and European media. Partners will be asked to publish such news in their publication channels and to distribute them in relevant media channels within their own countries.

10.12. Multipliers & synergies

Multipliers will enable spreading information about DWC to a larger audience and will be a key in getting our message across. We will collaborate with and contact **multipliers** as listed in Section 5/Annex 1 (Target audiences).

In addition, we will aim to liaise with **other initiatives or EU-funded projects** with shared interest (See Annex 1). Several DWC partners are involved in projects that offer great synergy opportunities for sharing expertise and for disseminating information about DWC.

More generally, we will aim to exploit the **PR departments of partner institutions** and their other channels, asking partners to further disseminate any relevant news.

⁵ Under Communication/Event [on the cloud](#)

⁶ By "soft-sounding" we refer to contacts with journalists (which take place prior to e.g. the publication of a specific press release) to gauge their interest in the project or an issue.

10.13. EC channels and tools

Any relevant opportunity to communicate and disseminate the project activities and results via the EC and Horizon 2020 communication channels, including social media, will be considered to help raise the profile of the project and reach out to a wider audience. The DWC Coordinator will maintain regular communication with the Project Officer and inform about interesting news, results or events.

In addition, we will consider using some of the free tools made available by the European Commission to H2020 projects, such as:

Publications	<ul style="list-style-type: none"> • Horizon Magazine • Project stories • research*eu results magazine • research*eu focus • Newsletters
Audiovisual	<ul style="list-style-type: none"> • Futuris Magazine - EuroNews
Events	<ul style="list-style-type: none"> • Events on the CORDIS website
Online news	<ul style="list-style-type: none"> • Headlines on Commission’s Research & Innovation website • CORDIS Wire

10.14. Policy brief and recommendations

On month 40, the project partner ECOLOGIC will issue some recommendations for policy developments (targeted at EU level) (deliverable D3.3). Arctik will support the dissemination of these recommendations by many means, including the publication of the file on the DWC website and some social media share. All the partners will also support the dissemination of the recommendations by distributing them during EU or national policy events.

This policy recommendations will help to achieve the objective of implementation of the DWC policy recommendations for short- to medium-term policy developments in the EU and case study countries.

11. Monitoring and evaluation of activities

Continuous evaluation is necessary to analyse the effectiveness of the actions taken, in order to optimise future actions. We will regularly monitor the effectiveness of the communication

and dissemination activities and consider the use of different and/or additional channels if considered necessary. Both quantitative and qualitative indicators will be considered.

To facilitate monitoring and assessment, all partners will be requested to:

- Prepare and update their individual action plans;
- Conduct their dissemination and communication activities according to the global and individual action plans;
- Keep the WP7 leader Arctik updated about their dissemination activities as well as report on their activities during the update of the action plans (which actions were implemented, what supplementary activities were performed) and in the periodic reports to the EC.
- All partners should keep evidence of their implemented activities.

The following quantitative and qualitative KPIs have been defined to measure the effectiveness of the dissemination activities undertaken..

Table 13. DWC communication KPIs

Dissemination activity	Methodology	KPI	Target (End of the project)	Results of the Month 18 (1/09/2020-15/11/2020)
Project website	<i>Google analytics</i>	Number of total visits	>30,000	1,185
Social media / Twitter	<i>Twitter analytics</i>	Number of tweet followers	>1,000	386
		No of twitter campaigns	4	1
		Avg. reach per tweet from DWC twitter account (non-sponsored)	500	1317
		Avg. engagement (like, retweet, response) per tweet from DWC twitter account (non-sponsored)	10	11,68

	Avg. reach per tweet from DWC twitter account (sponsored campaigns)	8 000	NA
	Avg. engagement per tweet from DWC twitter account (sponsored campaigns)	0.28% 40.00% (video view rate)	NA
Social media / LinkedIn	<i>LinkedIn Campaign Monitor</i>	No of subscribers of the page	600
		No of posts published	50
		Avg. individual post engagement (non-sponsored)	5
		Avg. individual post reach (non-sponsored)	50
		Avg. individual post engagement (sponsored campaigns)	5% engagement
		Avg. individual post impressions (sponsored campaigns)	2 000 reach
			9,34
Videos (Vimeo)	<i>Vimeo analytics</i>	No of animated videos published	1
		No of demo case videos published	5
			0
			1

	No of videos for policy dissemination	tbc	0
	No of views per animated video	1 500	NA
	No of views per demo site video	150	NA
	No of views per video for policy dissemination	1000	NA
Media presence	<i>Dissemination reporting (Excel)</i>	No of articles/press releases published on DWC channels	30
		No of articles/press releases published on external channels	15
Events	<i>Dissemination reporting (Excel)</i>	No of external events attended by DWC partners	30
			15
Synergies & multiplier contacts	<i>List of related initiatives/projects /multipliers identified and proof of contact</i>	No of synergies/contacts	10
			5
Deliverables	<i>Deliverables submitted</i>	Quantity of deliverables	n/a
			3
Communication materials and visuals	<i>Materials produced</i>	Quantity of communication materials and visuals	n/a
			+/30

12. Action plan

Each partner is working in a specific geographic and sectoral context. A coordinated and collective effort is therefore needed to achieve a maximum impact. To ensure that all channels and dissemination opportunities are used and to facilitate the monitoring of the dissemination activities, two types of action plans have been established: collective and demo cities' action plans.

The demo cities' action plans cover activities planned by partners in each city, while the collective action plan includes both the overarching communication and dissemination activities, as well as the activities reported by the demo cities in their action plans. More detailed information on the format of the two plans is given below.

The action plans are a central part of this deliverable as they provide the main guideline for the partners to organise and implement dissemination and marketing activities according to the pre-defined objectives. It is important that partners keep a close eye on the plans, propose realistic activities, implement the tasks as foreseen, and accurately report on the activities.

12.1. Collective action plan

The collective action plan is about to be created in a format of an Excel table and serves both **as a day-to-day guidance document and as a reporting tool**. The plan is in the format of an Excel table and includes *all* planned and already performed communication activities (by Arctik and by other partners), covering the full duration of the project. As mentioned, the plan has been designed to be a living document and regularly updated.

The Excel file is supplemented with the update of this present document on the 18th and 36th months (in a format of a Word document) which is shared with the project partners. Once finalised, the agreed planning of the Word document is integrated within the longer action plan (Excel), which is then used for monitoring of the defined activities.

The communication and dissemination table (Excel) includes information on:

- Foreseen activities
- Completed activities
- Lead partners
- Involved partners
- Target audiences
- Status of the activities

This Excel table is monitored and updated monthly as needed.

12.2. Demo cities actions' plans

Sectoral action plans by each sector have likewise been created in a format of an Excel table. All fields indicated in the Excel should be filled in carefully.

The plans will be updated at regular intervals. **Arctik will coordinate the creation of the first action plan by M7** (December 2019), following the creation of this communication strategy and the collective action plan. Arctik will also follow-up with the partners to coordinate the updates of these plans.

The activities set out in the sectoral action plans will be integrated at each update within the collective action plan (Excel table), which will be used to monitor these as well as the overarching dissemination activities.

13. Annexes

13.1. Annex 1: Updated list of water/wastewater utilities and city decision-makers provided by members of the consortium, status as of 6th of November 2020

Name of organisation	City	Country
DWA	Bonn	Germany
ACEA	Rome	Italy
FAI	Milan	Italy
ISS	Rome	Italy
Utilitalia	Rome	Italy
Ministero Salute	Rome	Italy
SWP/EWP	Potsdam	Germany
City of Marseille	Marseille	France
Portuguese Environmental Agency	Lisbon	Portugal
UK Environmental Agency	London	United Kingdom
Syndicat Marne Vive	Île-de-France	France
Paris City	Paris	France
Agence Régionale de Santé	Paris	France
City of Berlin	Berlin	Germany
BWB	Berlin	Germany
BSR	Berlin	Germany
BVG	Berlin	Germany
Consozlo Est-Ticino	Milan	Italy
Anbi Lombardia	Milan	Italy
Autorita Di Distretto Po	Parma	Italy
CIIP	Fermo	Italy
Viva Servizi	Ancona	Italy
Regione Marche	Marche Region	Italy
Wareg	Brussels	Belgium
ARERA	Brussels	Belgium
HERA	Bologna	Italy
IREM	Genova	Italy
ACEA	Roma	Italy
ATS	Treviso	Italy
CAFC	Udime	Italy
Mekorot		Israel
Socamex		Spain
Aguas de Portugal	Lisbon	Portugal
City of Ancona	Ancona	Italy
Azienba Gardesanas	Garda Care	Italy
Siemens	Nuremberg	Germany

ETASO	Versailles	France
City of Oslo	Oslo	Norway
City of Almazora	Almazora	Spain
3 Vand	Copenhagen	Denmark
DANVA	Copenhagen	Denmark
City of Bergen	Bergen	Norway
Svensk Vatten		Sweden
DECHEMA	Frankfurt	Germany
Eau de Paris	Paris	France
Københavns Kommunes	Copenhagen	Denmark
Comune di Milano	Milan	Italy
Città Metropolitana di Milano	Milan	Italy
Sofia Municipality	Sofia	Bulgaria
Volksbegehren zum Schutz des Wassers	Berlin	Germany
GWF	Berlin	Germany
ReWaM	Berlin	Germany
Water Governance	Berlin	Germany
Emscher Lippe EGLV	Emscher	Germany
Fep France Eau Publique	Paris	France
Aqua Italia	Milan	Italy
Depur Padana Acque	Milan	Italy
Conseil départemental des Hauts de Seine	Nanterre	France
Conseil départemental de Seine-Saint-Denis	Bobigny	France
Conseil départemental du Val-de-Marne	Créteil	France
Aguas de Alicante	Alicante	Spain
Stichting Waternet	Amsterdam	Netherlands
South West Water		UK

This list and the following (Annexes 1-4) will be updated for the next versions of the deliverables.

13.2. [Annex 2: Updated list of stakeholders provided by members of the consortium, status as of 6th of September 2020](#)

Name of organisation	City	Country
Media Tech Hub Potsdam	Potsdam	Germany
IBB	Berlin	Germany

GWP German Water Partner	Berlin	Germany
DWA German Water Association	Hennef	Germany
EWA	Hennef	Germany
Adelphi	Berlin	Germany
Berlin Partner für Wirtschaft und Technologie	Berlin	Germany
Impact Hub Berlin	Berlin	Germany
Ile-de-France Europe	Paris	France
Eurocomm PR Sofia	Sofia	Bulgaria
Partner für Wasser	Berlin	Germany
Forum Thinkwasser	Berlin	Germany
Ruhrverband	Berlin	Germany
Office international de l'eau	Paris	France
France Environment	Paris	France
Federation professionnelle des entreprises de l'eau	Paris	France
Rethink Water	Copenhagen	Denmark
State of Green Denmark	Copenhagen	Denmark
WaterEurope	Brussels	EU
Fraunhofer Fokus		Germany
Siemens		Germany
IWA		International
IBM		USA
Aqualia		Spain
UNICEF Water		Global
The Water Network		Global
Blue-Green Infrastructure		Global
Young Water Leaders		Global
World Bank Water		Global
Global Water Partnership		Global
Aquatech		Global
Oxford Water Work		Global
Alliance for Water Efficiency		USA
FIWARE Foundation		Germany
OiEau	Valbonne	France
ICLEI		EU
EUROCITIES		EU

13.3. Annex 3: Updated list of scientific organisations provided by members of the consortium, status as of 6th of November 2020

Name of organisation	City	Country
TU Berlin	Berlin	Germany
University of Osnabrück	Osnabrück	Germany
Nachwuchs Gruppe Digitalisiererug	Berlin	Germany
DTU Technical University	Copenhagen	Denmark
IT University of Copenhagen	Copenhagen	Denmark
Politecnico di Milano	Milan	Italy
Académie de l'eau	Paris	France
EURECAT	Barcelona	Spain
Hydrologic	Delft	Netherlands
iermB	Barcelona	Spain
Future City Foundation	Amersfoort	Netherlands
IVL	Stockholm	Sweden
CERTH	Hellas	Greece
IHE Delft	Delft	Netherlands
VUB	Brussels	Belgium
National Technical University of Athens	Athens	Greece
Centre for Water Systems, University of Exeter	Exeter	UK
KWR	Nieuwegein	Netherlands
TZW – the German Water Centre	Karlsruhe	Germany
CNRS	Paris	France

13.4. Annex 4: Updated list of European and national policymakers provided by members of the consortium, status as of 6th of November 2020

Name of organisation	City	Country
Ecoruet	Berlin	Germany
Kyoto Club	Rome	Italy
Ministero Salute	Rome	Italy

UK Environmental Agency	London	UK
Regione Marche	Marche Region	Italy
Wareg	Brussels	Belgium
ARERA	Milan	Italy
German Ministry of Environment	Berlin	Germany
Landesamt für Gesundheit und Soziales Berlin	Berlin	Germany
ICT4Water	Brussels	EU
Danish Ministry for Climate, Energy and Utilities	Copenhagen	Denmark
Danish Ministry for the Environment	Copenhagen	Denmark
Bulgarian Ministry of Environment and Water	Sofia	Bulgaria
French Ministry for the Ecological Transition	Paris	France
European Commission, DG GROW	Brussels	EU
EASME	Brussels	EU
European Commission, DG RTD	Brussels	EU
Research Executive Agency	Brussels	EU
JRC	Brussels	EU
EEA	Brussels	EU



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