



# Co-UDlabs

**BUILDING COLLABORATIVE URBAN  
DRAINAGE RESEARCH LABS COMMUNITIES**

## **D4.2. Plan for exploitation and dissemination of the project results**

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## BACKGROUND: ABOUT THE CO-UDLABS PROJECT

Co-UDlabs is an EU-funded project aiming to integrate research and innovation activities in the field of Urban Drainage Systems (UDS) to address pressing public health, flood risks and environmental challenges.

Bringing together 17 unique research facilities, Co-UDlabs offers training and free access to a wide range of high-level scientific instruments, smart monitoring technologies and digital water analysis tools for advancing knowledge and innovation in Urban drainage systems.

Co-UDlabs aims to create a urban drainage large-scale facilities network to provide opportunities for monitoring water quality, UDS performance and smart and open data approaches.

The main aim of the project is to provide a transnational multidisciplinary collaborative research infrastructure that will allow stakeholders, academic researchers, and innovators in the urban drainage water sector to come together, share ideas, co-produce project concepts and then benefit from access to top-class research infrastructures to develop, improve and demonstrate those concepts, thereby building a collaborative European Urban Drainage innovation community.

The initiative will facilitate the uptake of innovation in traditional buried pipe systems and newer green-blue infrastructure, with a focus on increasing the understanding of asset deterioration and improving system resilience.

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## LIST OF ACRONYMS

Acronym / Abbreviation	Meaning / Full text
CA	Consortium Agreement
GA	Grant Agreement
IAB	Innovation Advisory Board
IP	Intellectual Property
JRA	Joint Research Activity
KER	Key Exploitable Result
KPI	Key Performance Indicator
PEDR	Plan for Exploitation and dissemination of Results
RI	Research Infrastructure
TA	Transnational Access
UDS	Urban Drainage System
WP	Work Package

## EXECUTIVE SUMMARY

This document is a deliverable of the Co-UDlabs project, funded under the European Union's Horizon 2020 research and innovation programme under grant agreement No 101008626.

The aim of this document is to provide the first version of the Plan for Dissemination and Exploitation of Results (PEDR), produced at M6 as part of the Work Package 4 on communication, dissemination and exploitation of results.

The aim of the PEDR is to provide the Co-UDlabs partners with guidelines on the different communication and dissemination activities that are planned and their schedule, who are the partners responsible for each activity and what tools and channels are available for dissemination. A section on exploitation will define the actions planned to achieve the exploitation of the results and impact of the project.

More specifically, in terms of dissemination and communication the PEDR will:

- Propose a communication and dissemination policy, and define the objectives of the actions;
- Identify the target audience for each objective or main result;
- List the communication and dissemination channels to be used for project promotion;
- Present a schedule of the communication and dissemination actions throughout the project duration;
- Define and monitor a series of Key Performance Indicators (KPIs) to assess the success of the implementation (e.g. number of publications, size of the audience reached, number of visits on the website, feedback received from audiences at conferences, etc.) and update the plan according to the evolution of the project.

In terms of the exploitation of the results, the PEDR will contain the following information, if applicable and when relevant, especially within the final exploitation plan to be submitted at the end of the project:

- The identification of exploitable main outputs of the project;
- The identification of the factors influencing exploitation and wide deployment of the project's results
- The identification of new and existing measures for the project sustainability.

The document is drafted by Euronovia, which is leader of this Work Package, with inputs from all partners.

While Euronovia is the leading partner in charge of WP4, all partners have the responsibility to participate in the communication activities and dissemination of the results of the project. According to the grant agreement and unless it goes against their legitimate interests, each beneficiary must, as soon as possible, disseminate its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications.

The PEDR is an evolving document which will be updated at the end of each reporting period (October 2022, April 2024 and April 2025).

## 1. DISSEMINATION AND COMMUNICATION STRATEGY

Co-UDlabs will integrate along the project many activities to enhance the dissemination and exploitation strategy, maximize the expected impact and boost the project sustainability for the continuation of the project after the EU-funding. The considerable geographic coverage of the project provides a strong foundation for a much broader engagement, and ultimately for the basis upon which to work towards long term sustainability for the UDS community. In the framework of the dissemination and communication strategy, we have three main objectives:

- **Dissemination for Awareness:** to ensure the project is known to relevant stakeholders in the field of urban drainage, municipalities and public authorities' planners, and the public in general.
- **Dissemination for Understanding:** to encourage a better understanding of the project results leading to greater engagement of external stakeholders and a better future uptake of the project outcomes. To do so, we will not only disseminate project results but also success stories related to the technological development within the project and the use of RIs by external groups in the framework of the Transnational access.
- **Dissemination for Action:** to make the scientific community, stakeholders and decision makers aware of the potential uses of the technologies developed in the project and to ensure adoption of technologies, processes and services being developed by the project partners.

### 1.1. PHASES OF THE DISSEMINATION STRATEGY

The planning and execution of the project activities require a good scheduling closely aligned with key project deliverables and milestones. At this scope, we are planning several phases over the 4 years of the project, each with specific tasks, as shown in the table below.

Table 1: Dissemination strategy planning

Main Tasks	Task description	Year 1	2	3	4
Dissemination and exploitation strategy definition	During the first months of the project, we will define the dissemination and exploitation strategies, focusing on the planned project outcomes and targeted stakeholders and access users. This will be updated after annual monitoring of the implementation of the dissemination activities.				
Creation and clustering with stakeholders' network group	Co-UDlabs will develop an end-user network group consisting of end-users, associated partners and other external actors in the field, that will be consulted in the project and targeted as users of the research infrastructures. This will be also used at the start of the project to define the end-user requirements and, in later stages, to assess and validate the project outcomes.				
Events participation/workshop organisation	Organise workshops and participate in special events (stakeholder workshops and national level events, hackathons) for co-creating ideas for potential TA projects and foster innovation by multisectoral teams.				
Publications in scientific journals, conferences and specific magazines	Actively publish in both scientific (for academics) and technical (for practitioners) journals and trade magazines to widely disseminate the project outcomes and support its results.				
Exploitation	Implement a robust exploitation strategy focusing on the adoption of project outcomes and directing further development of results beyond the project, including the organisation of an exploitation workshop during beginning				



	of year 3, providing information to TA User group on potential routes of EU and national funding and investment. Organization of direct contact with potential licensees and commercialisation companies.																			
<b>Impact Assessment</b>	Assess the impact of project outcomes through direct feedback from different stakeholders																			

## 1.2. DEFINITION OF THE CO-UDLABS TARGET AUDIENCE

We have identified several groups that have an interest or are going to be affected by the Co-UDlabs project. These will be targeted by different communication and dissemination actions and networking/clustering activities, as detailed in the table below.

*Table 2: Summary of target groups, objectives and content for Co-UDlabs dissemination*

Target and user groups	Description of the target groups and dissemination objectives	Objectives	Dissemination content and channels
<b>Academic and research community</b>	This group includes all research communities interested in the project's developments, results and innovation, which can be beneficiary for their own research activities.	<b>Transfer of knowledge, raise awareness</b>	Project website, press releases, social media, mailing lists, videos and webinars, public deliverables, scientific publications, conferences and other scientific events
<b>Industrial sector, water utilities and practitioners</b>	An important objective of Co-UDlabs is to address and trigger the active involvement of the industrial sector. The project is of relevance for organizations in various sectors such as providers of smart solutions for UD monitoring, asset evaluation techniques, manufactures of new solutions for sustainable urban drainage, and related professional associations.	<b>Demonstrate the business potential, push towards early adoption of products and services developed by Co-UDlabs, collect feedback on their expectations and requirement to adjust commercial exploitation plans and RI development</b>	Project website, press releases, mailing lists, innovation events (hackathons), dedicated training workshops, public deliverables (including free software tools and datasets), technical publications, dissemination at national level events. Multi-language documents are of key importance.
<b>Government bodies and policy makers</b>	This is a wide group encompassing innovation driven local, regional authorities, policy-makers at different levels, representatives and associations, Ministries, parliaments and Public Administrations at national and international level.	<b>Demonstrate the benefits of the Co-UDlabs RIs and tools to improve urban drainage, raise awareness about proposed regulatory evolution</b>	Final recommendations in deliverables, policy roadmaps, press kit, general dissemination, participation to policy events. Multi-language documents are of key importance.
<b>European and international technology networks</b>	This group refers to activities addressing external task forces. Relevant European technology clusters have been identified, such as Water Europe or Euroau (member of Co-UDlabs IAB)	<b>Use as dissemination relays towards their members</b>	Public deliverables, press kit, articles, press releases, communication package.
<b>National technology networks</b>	This group refers to activities addressing external task forces at national level. Relevant National level clusters have been identified	<b>Use as dissemination relays towards their members</b>	Presentation of Co-UDlabs at national level events. Multi-language communication package.
<b>EU projects working in similar domain</b>	The participation of project partners in other relevant projects offers the opportunity to establish quick links through joint actions.	<b>Coordinate dissemination activities in order to maximize their impact, exchange on R&amp;D results to improve robustness of project results</b>	Dissemination events, presentation at conferences, participation in workshops from other projects.
<b>The general public / advocacy groups</b>	General audience and other actors not identified such as environmental NGO as direct targeted groups by the	<b>Raise awareness on the importance of R&amp;D in urban drainage in general,</b>	Project website, brochure, press releases, social media, project outreach events for the general

	project, though this group might not have strong interest in the project.	<b>inform about the benefits of the project towards a sustainable system</b>	public. Multi-language documents are of key importance.
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Targeted audience will be refined throughout the lifetime of the project in relation to the results and deliverables. To reach out to the largest possible audience, each Co-UDlabs partner will use its own network of contacts, both at the local, national and European level (see Table 3 below). Information on the project has been sent out to some of these networks while others will be reached out in the future for dissemination of project results or targeted communication.

Table 3: Co-UDlabs partners' network

Co-UDlabst partner	Local and national networks	European networks
UNIVERSIDADE DA CORUNA	<ul style="list-style-type: none"> <li>- Agrupación CITEEC (A-CITEEC): about 300 organizations in the field of Civil Engineering follow their LinkedIn group and newsletter</li> <li>- Asociación Española de Abastecimiento y Saneamiento (AEAS). Spanish water supply and wastewater operators. The IV Comission of Urban Drainage has about 80 members (operators, industry) - <a href="http://www.aeas.es">www.aeas.es</a></li> </ul>	<ul style="list-style-type: none"> <li>- Young Water Professionals. IWA</li> <li>- Young Professional Network. IAHR</li> </ul>
THE UNIVERSITY OF SHEFFIELD	<ul style="list-style-type: none"> <li>-Sheffield Water Centre mailing list – mainly academic, but contains end users that have worked with UFSO researchers before.</li> <li>-CIWEM Urban Drainage Group – group focussed on modelling practice in UK Water Sector</li> <li>-SWIG – Sensors for Water Interest Group</li> </ul>	<ul style="list-style-type: none"> <li>- Research member of Water Europe</li> <li>- IWA/IAHR Sewer Processes and Networks Working Group</li> <li>- IWA/IAHR Working Group on Data and Models</li> </ul>
DELTARES	<ul style="list-style-type: none"> <li>- RIONED Foundation (Dutch interest group for urban drainage concerns)</li> <li>- Foundation for Applied Water Research (STOWA)</li> <li>- NWO (Dutch National Research Funding organisation)</li> </ul>	<ul style="list-style-type: none"> <li>- IWA/IAHR working group on Urban Drainage Asset Management</li> </ul>
EAWAG	<ul style="list-style-type: none"> <li>- Wasser-Agenda 21 (FORUM UND NETZWERK DER AKTEURE DER SCHWEIZER WASSERWIRTSCHAFT, <a href="https://wa21.ch/">https://wa21.ch/</a>)</li> <li>- Hochschulgruppe Simulation (HSG), Network of German-speaking Universities regarding simulation of Wastewater systems</li> <li>- VSA-competence center of urban drainage (CC-SE)</li> </ul>	<ul style="list-style-type: none"> <li>- IWA Specialists group on International Working Group on Data and Models (<a href="https://sites.google.com/view/iwgdm/">https://sites.google.com/view/iwgdm/</a>)</li> </ul>
IKT	<ul style="list-style-type: none"> <li>- IKT-Association of Network Operators (members: 130 Network asset owners - from Germany and a few from Europe) - <a href="http://www.ikt-online.org/about-us/ikt-association-of-network-operators/">www.ikt-online.org/about-us/ikt-association-of-network-operators/</a></li> <li>- IKT-Association of Industry and Services (75 members - from Germany and some of them international) - <a href="http://www.ikt-online.org/about-us/ikt-association-of-industry-and-service/">www.ikt-online.org/about-us/ikt-association-of-industry-and-service/</a></li> <li>- Kommunales Netzwerk Abwasser (Municipal Network Wastewater: 60 Municipals from Germany) - <a href="http://www.komnetabwasser.de">www.komnetabwasser.de</a></li> <li>- Johannes-Rau-Forschungsgemeinschaft (Joahannes-Rau-Research Association) (15 research institutes from North Rhine-Westfalia) - <a href="http://www.jrf.nrw">www.jrf.nrw</a></li> <li>- DWA - Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V.</li> </ul>	<ul style="list-style-type: none"> <li>- ComNet Wastewater (International network for the exchange of experience between Network asset Owners, organized by IKT)</li> <li>- European Water Association (EWA) - research member</li> </ul>

	(IKT is participating in working groups) - <a href="https://en.dwa.de/en/">https://en.dwa.de/en/</a> - IWA Specialist group on Urban Drainage	
<b>INSA Lyon</b>	- ASTEE Commission Assainissement (Sewerage Group) - ASTEE Research Committee - OTHU ( <a href="http://www.othu.org">www.othu.org</a> ) - H2O Lyon ( <a href="https://h2o.lyon.universite-lyon.fr/h2o-anglais-105390.kjsp?RH=3020308959015886">https://h2o.lyon.universite-lyon.fr/h2o-anglais-105390.kjsp?RH=3020308959015886</a> )	- IWA / IAHR Specialists group on Urban Drainage ( <a href="http://www.jcud.org/">http://www.jcud.org/</a> )
<b>AALBORG UNIVERSITY</b>	- DWPC - Danish Water Pollution Committee - IWA Danish National Committee	- ITN Limnoplast - Microplastics in Europe's freshwater ecosystems: From sources to solutions <a href="https://www.limnoplast-itn.eu/">https://www.limnoplast-itn.eu/</a> - International group on urban rainfall (IGUR) under Joint committee on urban drainage (JCUD) - Nordic Framework for Climate Services (NCFS) - Sewer Systems and Processes Working Group (SS&PWG) under the IWA/IAHR Joint Committee on Urban Drainage
<b>GRAIE</b>	- GRAIE network (350 members: urban district, private engineering and scientists; 2500 contacts) - GRAIE and Adopta - 143 members - national network of "stormwater" facilitators as part of a ministerial roadmap for stormwater management - URBIS - 450-500 scientists and practitioners ( <a href="http://www.graie.org/urbis-soere/spip/spip.php?rubrique4">http://www.graie.org/urbis-soere/spip/spip.php?rubrique4</a> ) - 3 regional observatories: - OPUR "Observatoire d'hydrologie urbaine", Paris "Observatoire de Terrain en Hydrologie Urbaine", Lyon - ONEVU "Observatoire Nantais des Environnements Urbains", Nantes. - OTHU - 115 scientists and doctoral students - 50 practitioners and partners <a href="http://www.othu.org">http://www.othu.org</a> - ASTEE - 4000 members (urban district, private engineering, industry...) <a href="https://www.astee.org/membres/">https://www.astee.org/membres/</a> - AMORCE - 92 urban district for the "water and wastewater" thematic <a href="https://amorce.asso.fr/nos-adherents">https://amorce.asso.fr/nos-adherents</a> - VAD - 360 members (urban district, landscape designer, town planner...) <a href="https://www.ville-amenagement-durable.org/QSN">https://www.ville-amenagement-durable.org/QSN</a>	

A contact form has also been developed on LimeSurvey by GRAIE (in the framework of WP1) in collaboration with UDC and Euronovia in order to constitute a project's stakeholders' database. Subscribers will receive, for example, the project newsletter and targeted communication related to upcoming project activities, events and results. The link to the form (<http://www.graie.org/survey2/index.php/787823?lang=en>) is available on the project website and has also been widely distributed by each partner to their respective networks. People subscribing to this form will be asked to provide, for example, their field of activity, the kind of information they would like to receive from the project, or the topics they are most interested in. The form is available in English, French and Spanish.

In addition, within WP1 the project partners will work to make an inventory of existing users of the Co-UDlabs RIs and related stakeholders, map the potential future users of the RIs (which will also serve for dissemination in WP4) and other new stakeholders from the community. The International Advisory Board (IAB) created at the start of the project will support this task, especially targeting the industry and academia sectors.

In the end, we will be able to perform a stakeholders' analysis to identify the different categories of the project end-user community. We also plan to elaborate a dissemination impact analysis where we will evaluate the responses gained from the different target groups and their interest in using our RIs. This will bring important information for further exploitation of the RIs by end users after the end of the project.

We have also started to identify a list of EU projects working on a similar domain (see Table 4 below) that we are planning to reach out in order to create synergies and maximize our impact. This list will be constantly updated during the whole duration of the project.

*Table 4: List of European projects on a similar domain*

Project	Objective/Interaction	Website
Ponderful	Develop improved methods for maximising the use of ponds and pondsapes to mitigate and adapt to climate change, protect biodiversity and the delivery of ecosystem services.	<a href="https://ponderful.eu/">https://ponderful.eu/</a>
aqua3S	Create strategies and methods enabling water facilities to easily integrate solutions regarding water safety through the combination of novel technologies in water safety and the standardisation of existing sensor technologies.	<a href="https://aqua3s.eu/">https://aqua3s.eu/</a>
nextGen	Boost sustainability and bring new market dynamics throughout the water cycle at the 10 demo cases and beyond.	<a href="https://nextgenwater.eu/">https://nextgenwater.eu/</a>
Hydrousa	Set up, demonstrate and optimise low-cost, innovative, nature-based solutions for the treatment and recovery of non-conventional water sources such as wastewater, rainwater, groundwater, seawater and atmospheric vapour water	<a href="https://www.hydrousa.org/">https://www.hydrousa.org/</a>
NAIADES	Support the modernization and digitization of the water sector by providing a holistic solution for the control and management of water ecosystems.	<a href="https://naiades-project.eu/">https://naiades-project.eu/</a>
URBAN Green Up	Develop, apply and validate a methodology for Renaturing Urban Plans to mitigate the effects of climate change, improve air quality and water management and increase the sustainability of our cities through innovative nature-based solutions.	<a href="https://www.urbangreenup.eu/">https://www.urbangreenup.eu/</a>
BEWARE	Establish and promote the diffusion of a model for climate adaptation to flood risk	<a href="https://www.lifebeware.eu/">https://www.lifebeware.eu/</a>
SCOREWater	Connect governments, universities and urban developers and technology professionals within the water society to develop and test water-smart digital solutions and best practices to strengthen cities' resilience.	<a href="https://www.scorewater.eu/about-us">https://www.scorewater.eu/about-us</a>
AquaSPICE	Materialize circular water use in European Process Industries, foster awareness in resource-efficiency and deliver compact solutions for industrial applications.	<a href="https://aquaspice.eu">https://aquaspice.eu</a>
LabPlas	Improve microplastic detection and monitoring procedures, quantify microplastics pollution in two large European river basins and look for new modelling approaches to determine microplastic contribution to seas.	<a href="https://cordis.europa.eu/project/id/101003954">https://cordis.europa.eu/project/id/101003954</a>
MultiSource	Demonstrate a variety of about Enhanced Natural Treatment Solutions (ENTS) treating a wide range of urban waters and to develop innovative tools, methods, and business models that support citywide planning and long-term operations and maintenance of nature-based solutions for water treatment, storage, and reuse in urban areas worldwide.	<a href="https://cordis.europa.eu/project/id/101003527">https://cordis.europa.eu/project/id/101003527</a>
Smart Cities EU	The Smart Cities Marketplace was created by merging the two former Commission projects "Marketplace of the European Innovation Partnership on Smart Cities and Communities" (EIP-SCC) and the "Smart Cities Information System" (SCIS) into one single	<a href="https://smart-cities-marketplace.ec.europa.eu/">https://smart-cities-marketplace.ec.europa.eu/</a>

	platform. It is a major market-changing undertaking that aims to bring cities, industries, SMEs, investors, researchers and other smart city actors together.	
<b>OPENSENSE</b>	Opportunistic precipitation sensing network. OPENSENSE brings together scientists investigating different opportunistic sensors, experts from national weather services, owners of sensor networks, and end-users of rainfall products to build a worldwide reference opportunistic sensing community	<a href="https://www.cost.eu/actions/CA20136/">https://www.cost.eu/actions/CA20136/</a>
<b>MonoPlas</b>	Train early-stage researchers for the development of technologies to monitor concentrations of micro and nano plastics in water for their presence, uptake and threat to animal and human life	<a href="https://www.monplas.eu/">https://www.monplas.eu/</a>
<b>BEGIN</b>	Blue Green infrastructure through Social Innovation: an NSR Interreg projects linking Universities and cities to examine the implementation of Blue-Green Infrastructure through social innovation.	<a href="https://northsearegion.eu/begin/">https://northsearegion.eu/begin/</a>
<b>SCORE</b>	Increase climate resilience in European coastal cities. The project will tackle specific challenges related to sea levels, coastal erosion and extreme weather events using an integrated solution of smart technologies and nature-based solutions.	<a href="https://score-eu-project.eu/">https://score-eu-project.eu/</a>

### 1.3. THE CO-UDLABS MESSAGES

For each different audience, a distinct strategy using targeted messages, means and language will be used. In particular, for each audience we will try to answer the following questions and adapt the message we are delivering:

- Why do they need to know?
- What makes the issue urgent?
- What are the consequences if no action is taken?
- What solutions are we offering?
- How does our work relate to everyday life?
- Does it link to any broader societal issue?

Rather than focusing only on the provision of factual information, we will try as much as possible to position our research topic within a broader socio-economic and policy context, so that it will be easier to explain the results and their relevance to both policymakers and citizens.

Here are some messages that we are planning to deliver through the dissemination activities:

- Remind the importance of Urban Drainage Systems (UDS) in providing flood risk reduction and safe sanitation and raise awareness of the need to develop a more sustainable and smart urban drainage system;
- Promote the role of the Co-UDlabs facilities in studying, at pilot and full scale level, many of the solutions and technologies potentially capable of transforming UDS. These facilities can support studies into novel approaches to deal with new sensors, emerging contaminants, low energy technologies, resource recovery, and data analytics technologies;
- Promote the research infrastructure access within Co-UDlabs to enable breakthrough research and innovation opportunities to research teams and water utilities and their supply chain partners to develop a variety of sustainable technologies;
- Recall the importance of improving the visibility of existing problems in the urban drainage systems enhancing the role of RIs to solve UDS challenges. In fact, the urban drainage sector is a sector often forgotten by society that

only appears in the media or in political decisions after the occurrence of extreme or critical events that generate risks to the population or ecosystems, such as urban flooding or pollution episodes in receiving surface waters.

- Recall the importance of involving key users and public authorities at local, regional and national levels in the project in order to guarantee the back-up of the project by stakeholders.

## 1.4. DISSEMINATION RULES AND PROCEDURES

### 1.4.1. Communication within the Co-UDlabs consortium

Communication among partners is crucial to exchange up-to-date knowledge and data and to enhance and optimise collaborations and inter-linkages between the WPs. This is also needed to define the best valorisation and external dissemination strategies.

Internal communication will be ensured through regular exchange of information via email and during bi-monthly meetings, when all partners gather together to discuss achievements, upcoming activities, deadlines and issues arising within the different work packages. WP leaders are also presenting main research advances during each Co-UDlabs plenary meetings or whenever needed.

Euronovia (the WP4 leader) and UDC (the project coordinator), are working together to update social media accounts and the project website with information about the upcoming activities and events of the project. They are also regularly encouraging the other members of the consortium to participate in communication and dissemination activities, namely:

- Communicating their activities and disseminating their results to their respective networks, in social media and through news on the project website,
- Contributing to the content of the biannual newsletter (articles, interviews),
- Informing the other partners of interesting initiatives and events in the urban drainage sector,
- Keeping track of their participation in external events by filling-in a dedicated reporting table,
- Disseminating results and publications in open access.

### 1.4.2. Open access to scientific publications

The access policy that will be implemented by the project will give priority to the Green model with the requirement to fix the embargo to 6 months after the first date of publication, as required by the EC. However, when not applicable, the publication policy of the consortium will be to pay the fees to make the scientific publications free of access. The costs related to paying the “Gold” open access for a number of publications have been integrated into the budget of the project.

The platform Sherpa/Romeo (<http://www.sherpa.ac.uk/romeo/index.php>) will be used to have a summary of permissions that are normally given as part of each publisher's copyright transfer agreement.

Further to this and whenever necessary, the addendum to publication agreement provided by the European Commission will be used. This is an instrument that, if accepted by the editor, modifies the publisher's agreement and allows the researcher to keep key rights to your articles. The coordinator will be in charge of supporting the researchers for these administrative issues related to the communication with the publishers.

In addition, the consortium will consider submitting papers to the Open Research Europe, the new open access publishing platform for the publication of research stemming from Horizon 2020 funding. This will be discussed by the project partners on a case-by-case basis.

All publications will be stored in an online project community that will be created on Zenodo.

### 1.4.3. Open access to scientific data

The project will collect relevant research data, that will be managed according to the Data Management Plan (D4.1) respecting the principle that open scientific research data should be easily discoverable, accessible, useable, and wherever possible interoperable to specific quality standards. In accordance with the rules of the Open Research Data Pilot, for each research dataset, the Co-UDlabs partners will carefully study the possibility and pertinence to make them findable, accessible, interoperable and reusable. Data will be shared in accordance with recognized standards used in the research field, to maximize the opportunities for data linkage and interoperability. Sufficient metadata will be provided to enable the datasets to be used by others. Generally, the data being produced will be shared and made accessible for verification and re-use, according to the provisions foreseen in the CA. Access to specific data may be restricted under limited circumstances (e.g. for national security, to protect personal data and where the relevant new know-how acquired in the project is protected in order not to endanger the exploitation of the project's results).

The first version of the Data Management Plan (DMP) has been prepared and submitted at M6 and it will be regularly updated. In this document the partners will describe the handling of data during and after the end of the project, the methodology, responsibilities, which data will be made openly available and how, the measures undertaken to facilitate the interoperability and reuse of the research data and how the data will be curated and preserved.

### 1.4.4. Use of graphic identity and EU visibility

A common graphic identity has been defined to allow for better visibility and recognition as well as branding of the Co-UDlabs project. Therefore, all dissemination tools and activities must refer to or include:

- The name of the project: Co-UDlabs
- The project's website URL (<https://www.co-udlabs.eu>)
- The Co-UDlabs project logo (different versions to be used depending on the background color)
- Information on EU funding (as defined in the article 29.4 of the GA):
  - Unless the Agency requests or agrees otherwise or unless it is impossible, any dissemination of results (in any form, including electronic) must: (a) display the EU emblem and (b) include the following text: "This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101008626".
  - When displayed together with another logo, the EU emblem must have appropriate prominence.

## 1.5. DISSEMINATION AND COMMUNICATION ACTIVITIES AND TOOLS

The communication activities that will be part of the dissemination plan described in WP4 will be tailored to ensure that important messages are widespread to the adequate targeted audience and that the public at large gets connected with Co-UDlabs RI. Such activities complement the dissemination as they "translate" the sometimes-complex results into easy-to-understand resources focusing more on the impacts and added value for the end-users of Co-UDlabs and the society in general.

The main purposes of the communication activities of the project have been defined as follow:

- To show how European collaboration has achieved more than would have otherwise been possible, notably in achieving scientific excellence, contributing to competitiveness and solving societal challenges.

- To show how the outcomes are relevant to people’s everyday lives, by creating jobs, introducing novel technologies, or enhancing the quality of life of EU citizens and better protecting the environment, making people’s lives more comfortable in other ways.
- To better use of the results, by making sure they are taken up by decision-makers to influence policy-making and by industry and the scientific community to ensure a follow-up of the development of technology.

To do so, we will create and use different tools and activities, as detailed in the table below.

*Table 5: Main elements of the dissemination strategy*

<b>Visual Identity</b>	The project branding will help all partners communicate about the project in a uniform, consistent, and professional manner. The project branding includes project logo, visual identity, written identity including tagline and key messages and templates for Word and PowerPoint.
<b>Communication materials</b>	- A communication package containing the main elements of the project and gathered in a PPT presentation, a poster, a project banner and a word document (one-page project description, objectives, impacts). The communication package will be translated to French, Spanish and German to achieve a broader audience with water operators, utilities and other stakeholders. - 1 flyer, 1 brochure, 8 newsletters (1 every 6 months), 2 press releases and 2 articles in specialized magazines, 1 timeline infography, 1 motion design video to be promoted through the EU audiovisual channels and YouTube.
<b>Website</b>	The public website contains information targeted for the general public, the UD scientific community and SMEs in the water sector and commercial bodies in other sectors (description of the project, the WPs, the partners, basic information on the technology) as well as specific information targeted towards the different type of stakeholders linked to the project (training materials, scientific papers, environmental impact, ...) and a section dedicated to TA access.
<b>Social networks and online presence</b>	Social web-based media (creation of 1 LinkedIn page and Twitter account), which will serve to target the general audience as well as more technology related stakeholders. Interviews to each of the partners will be done and integrated into a video for wide online dissemination. Webinars will be organized to communicate on the project and attract new users, and YouTube videos will be done by the partners.
<b>Press relations</b>	- 2 media press kit to be done at mid and the end of the project and disseminated to the press, to show project and TA programme results. - Public relations and media coverage (national/international press, communication to citizens and authorities).
<b>Publications</b>	Scientific and technical publications in both journals and trade magazines to widely disseminate the project outcomes and support its results.
<b>Events</b>	- Organisation of several events: webinars, doctoral schools, summer schools, industrial training courses, workshops, seminars, exhibitions in science popularization events and in specific fairs and one final infoday. - Participation in external events and scientific conferences to present the project activities and outcomes.

### 1.5.1. Visual identity

The project branding will help all partners to communicate about the project in a uniform, consistent, and professional manner: it includes the project logo, project identity and style guide, templates for word and PowerPoint documents.



The pictograph of the logo is a stylistic representation of a urban background (three buildings) and an element representing the green infrastructures (a leaf). The logo will be used for all communication materials, with or without the baseline “Collaborative Urban Drainage Research Lab Communities”. The project’s graphical identity includes fonts, colors and texts directly derived from the project logotype. Such visual identity is defined by the project logo and it will be used in all dissemination tools and printed materials.



Templates for the project deliverables, meeting agenda and minutes have also been produced during the first months of the project, together with a PowerPoint template to be used by the partners for all presentations on Co-UDlabs both in internal and external events.

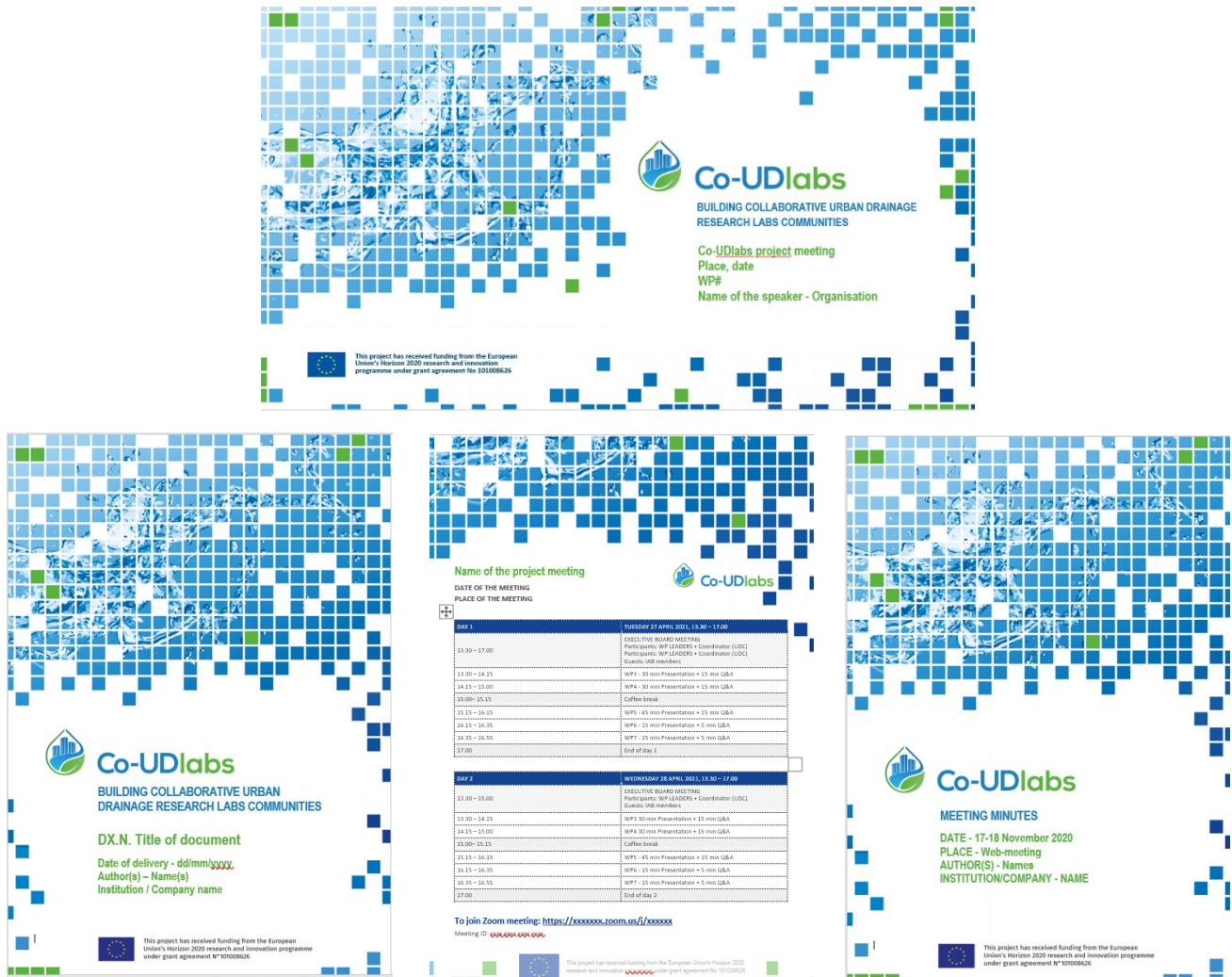


Figure 1: Co-UDlabs template: PowerPoint presentation, deliverable, agenda and minutes

## 1.5.2. Communication materials

The following communication materials have been prepared and distributed to the project partners in order to ensure effective communication and increase public awareness of the project.

### 1.5.2.1. Flyer and brochure

A project flyer with general information on the project and the research infrastructures available in the framework of the transnational access was prepared in October 2021. This will be distributed to partners and printed on the occasion of future events that the consortium is organizing or participating in.

A brochure will be created to present the research facilities and main results of the project and it will be distributed at conferences at national and international level, with different audiences (academia, industry, and water operators).

### 1.5.2.2. *Poster and roll-up banner*

A project poster and roll-up banner are ready to be printed and used during external conferences and events attended by the consortium to promote and present the results arising from the project.

### 1.5.2.3. *Press releases and articles*

A press release was drafted in July 2021 to summarize the most important information related to the project (scope, objectives, messages) to help the consortium to communicate the right information about the project. This was translated into French and Spanish and distributed by the project partners to their contact networks. Another press release is planned at the end of the project.

In addition, 2 articles in specialized magazines are also planned to be published during the project lifetime.

### 1.5.2.4. *Newsletter*

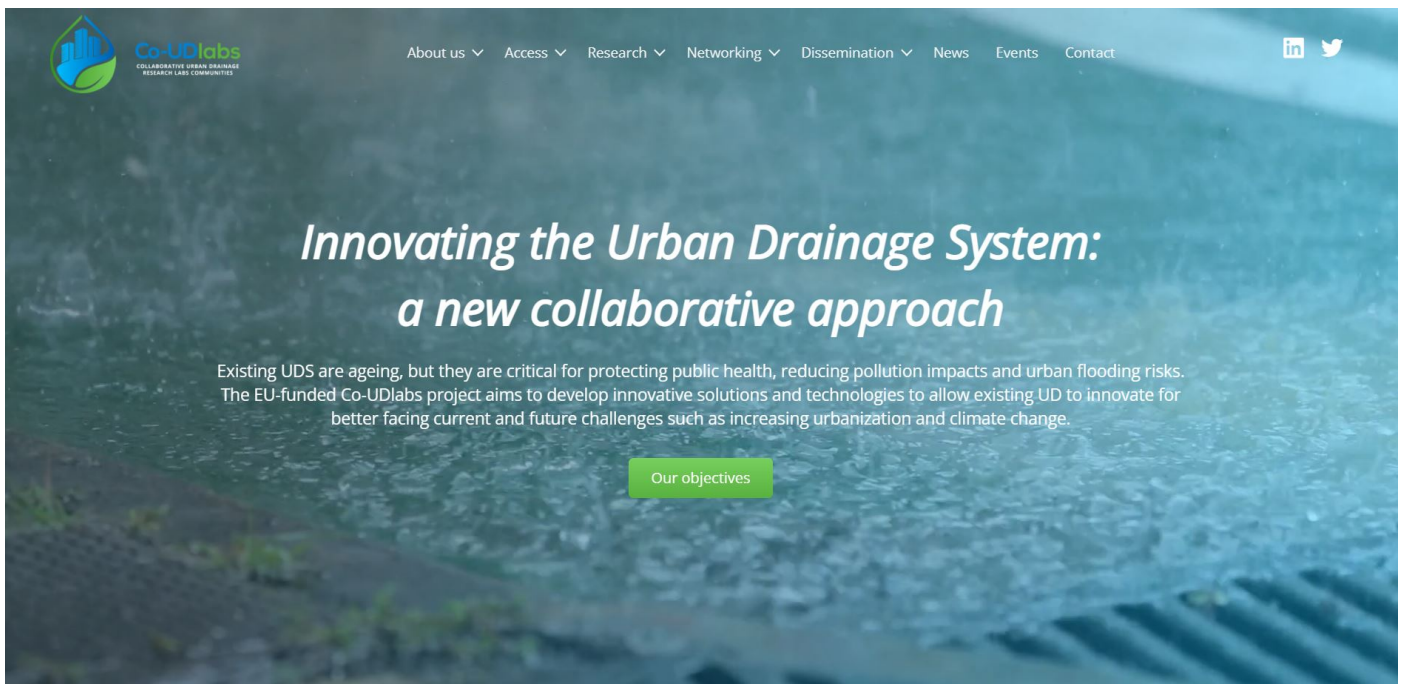
Another essential tool to keep in touch with the stakeholders is the edition of a project newsletter. 8 Co-UDlabs newsletters (twice a year) are planned to be sent out to the newsletter subscribers and will also be made available on the project website. In addition, the newsletter will be sent by e-mail to relevant networks of project partners. The first newsletter is planned to be sent out on November 2, 2021.

### 1.5.2.5. *Other communication materials*

1 timeline infography, 1 motion design video and several other videos will be created to present the project activities in an attractive and dynamic way. Videos will be made available in a YouTube channel especially created by the project.

## 1.5.3. Website

The project website (<https://www.co-udlabs.eu/>) is of crucial importance in order to enhance the visibility of Co-UDlabs as it will serve as the main communication tool for the wide dissemination of the project activities, deliverables and outcomes. This is the central place where we want to build the Co-UDlabs community together with water operators, companies, students, policy makers and advocacy groups interested in urban drainage.



The website includes information on the project scope, objectives and activities, partners, research infrastructures and information on the dissemination activities and documents. A specific section of the website is dedicated to the Transnational Access (TA), with useful information on the first call for proposal and related launching events.

Created in October 2021, the Co-UDlabs website will be frequently updated and the content will be expanded constantly during the project lifetime. The website currently includes the following sections:

- The **homepage** provides an overview of the project scope and concept and a selection of latest news;
- **About us:** it provides information on the objectives, workplan, expected impacts and the partners involved in the project;
- **Access:** this section includes information on transnational access and a complete description of the research facilities available within the consortium, as well as a section dedicate to the TA call;
- **Research:** it includes information on the Joint Research Activities and, in the future, links to scientific publications;
- **Networking:** a section with information on the different networking activities, trainings offered by the consortium and a section with links to EU projects linked to Co-UDlabs and the water management sector;
- **Dissemination:** provides information on the project communication material, deliverables, events and newsletter;
- **News:** a page including the list of news published by the consortium;
- **Events:** it includes information on future and past events organised by the project partners within the project;
- **Contact:** it includes the email address to reach us with specific questions as well as the link to the contact form created on Limesurvey to become part of the project community;
- **Links to social media**

The impact of the website will be monitored using Google Analytics and statistics on the use of website by users will be provided in the next version of the PEDR.

#### 1.5.4. Social networks and online presence

Social media will be used to inform and stay connected with the professionals, policy makers and scientific community as well as reach out to an interested general public.

A **LinkedIn page** and a **Twitter account** have been created in the first months of the project to develop a community of people interested in the project, to raise awareness on the project launch and objectives and to allow for more interaction with related initiatives:

- LinkedIn page: <https://www.linkedin.com/company/co-udlabs-project/>
- Twitter account: <https://twitter.com/CoUDlabs>

LinkedIn and Twitter users are very active, web-savvy and heavy internet users, thereby improving the visibility of the Co-UDlabs messages. These are proved to be very useful channels to enhance the visibility of publications, newsletters, project members participation in conferences/events (improving networking) and the dissemination of any important activities related to the project.

Partners are regularly encouraged by the UDC and Euronovia to actively participate by sharing news, articles about their work and regular information on the project developments, to initiate discussions and provoke debates. Such peer-to-peer insights delivered to personal professional contacts can be very effective in creating awareness and impact on the project.

The impact of using Twitter will be analysed through Twitter Analytics while the impact of the LinkedIn page is accessible by the group administrators and will be provided in the next version of the PEDR.

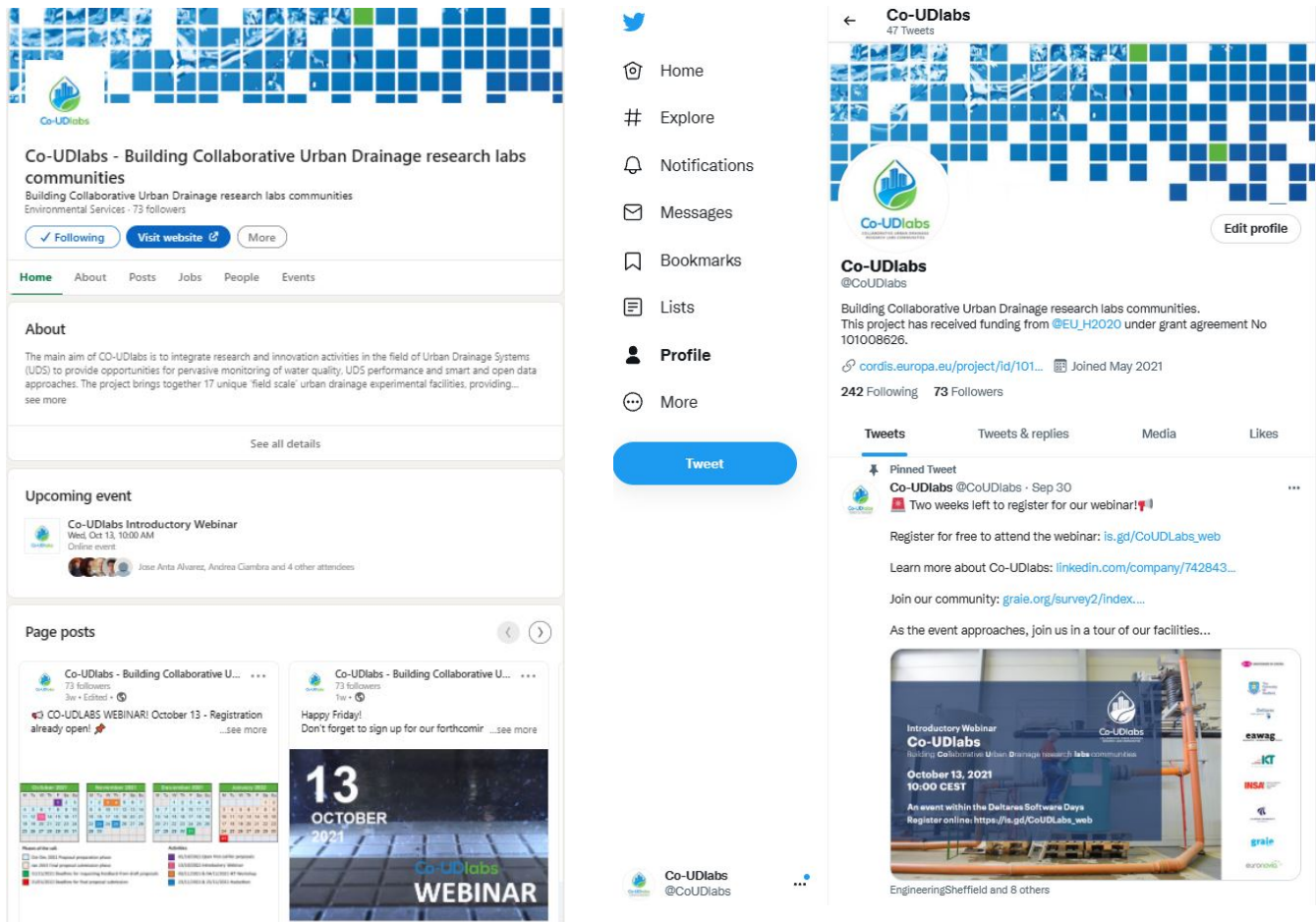


Figure 2- Co-UDlabs LinkedIn page and Twitter account

Further to these, a **YouTube account** will be also created towards the end of Year 1 where project videos, including interview of partners, presentation of the research facilities offered in the framework of the Transnational Access and video recordings of project events, will be uploaded.

With a constantly evolving social media landscape, Co-UDlabs will remain open to using any appropriate social media network or tool to meet the right target audience.

### 1.5.5. Press relations

PR is a very important tool for reaching the target audiences. Co-UDlabs will create several articles to inspire and engage the citizens and to reach a higher level of the importance of innovating urban drainage systems.

Different types of press relations and media coverage are planned to take place during the lifetime of the project:

- 2 media press kit** to be done at mid-term and the end of the project for dissemination to the press, to show project and TA programme results.
- Media coverage:** at least 15 external articles in the press/media (national/international press, communication to citizens and authorities).

The launch of the project has already been covered by two national Spanish journals thanks to UDC, the project coordinator.

### 1.5.6. Scientific and technical publications

In the course of the project, we will actively publish in both scientific (for academic) and technical (for practitioners) journals and trade magazines to widely disseminate the project outcomes and support its results. The partners are confident to publish at least 10 scientific publications in peer-reviewed journals and 8 technical papers in national and international journals.

Here is the list of relevant journals that the consortium has preliminary identified for the dissemination of the results to the scientific and industrial community:

- International journals
  - Water Research
  - Hydrology and Earth System
  - Science
  - Journal of Hydrology
  - Urban Water Journal
  - Blue and Green Infrastructure
  - Water21 (IWA magazine)
- National journals
  - TSM – Techniques Sciences Méthodes (FR)
  - Korrespondenz Abwasser (D)
  - BI Umweltbau (D)
  - Revista Ingeniería del Agua (SP)
  - Water Management (UK)
  - Water and Environment Journal (UK)
  - Aqua und Gas (CH)

### 1.5.7. Events

The Co-UDlabs project partners will organize and participate in several public events to disseminate the results of the project.

#### 1.5.7.1. Events planned to be organised by the project

- 2 seminars or special sessions associated with the 2022 SPN conference and 2023 Novatech international conference to create and consolidate a group of ‘early adopters’ users (WP1);
- 2 dissemination workshops on smart governance in urban water sector as side-events in national or international conferences (WP2)
- Internal 2 early-stage research seminars comprising PhDs and early-stage researchers from partners of Co-UDlabs (WP3)
- 1 open workshop and 1 PhD course for the UD European junior research community in 2022 and 2023 (WP3)
- 5 industrial workshops targeting UD industry professionals and practitioners (WP3)

- Public webinars and online lectures for specific and emerging monitoring techniques in UD (WP3)
- 3 workshops to disseminate the project results achieved in WP6, WP7 and WP8 (WP4);
- 2 webinars and 2 hackathons to promote the TA calls (WP5);
- 1 final infoday targeted at the general public and other non-experts (WP4);

### 1.5.7.2. Participation in external events

Co-UDlabs will be represented in a series of different national and international events. Partners attending these events are expected to engage with specialist groups of stakeholders and be confident ambassadors of the project.

- Scientific conferences** where the project results will be presented either via oral/poster presentations, which could lead to the publication of conference proceedings (WP4);
- National technical events** with practitioners, water utilities and regulators to disseminate Co-UDlabs products and services in the non-scientific UD community minimizing language barriers bottlenecks (WP4)
- Exhibition booths** in fairs in innovation and technology related events (WP4);
- Open-science events** to raise awareness of the project among the public and non-specialist audience in general (WP4)

More specifically, the Co-UDlabs scientific partners will facilitate the dissemination of the project results in national and international conferences in the UDS field. At this scope, the project partners have already identified a list of relevant events and conferences to which a participation could be envisaged. This list, which will be updated through the whole duration of the project, is available below. It is to be noted that, depending on the timing of these events, the type of results to be disseminated and budget constraints, only a limited number of events from this list will be selected. This will be discussed by the consortium in due time.

Table 6: Preliminary list of events targeted by the consortium

SCIENTIFIC CONFERENCES			
Name	Date	Venue	Partner planning to attend
Int. Conf. on Urban Drainage Modelling (UDM)	10-12 Jan. 2022	Costa Mesa, California	INSA
IAHR 39th IAHR World Congress	19-24 June 2022	Granada, Spain	UDC
IWA World Water Conference	11-15 Sept. 2022	Copenhagen, Denmark	INSA, AAU
AquaUrbanica Conference	November 2022	Switzerland	Eawag
Urban Rain Conference	December 2022	Switzerland	Eawag, AAU
International Conference on Sewer Processes and Networks (SPN)	2022	Graz, Austria	UDC, INSA, AAU
NOVATECH International Conference	2023	Lyon, France	INSA
AquaUrbanica Conference	November 2023	Germany	Eawag
International Conference on Urban Drainage (ICUD)	2023	Cape town, South Africa	UDC, INSA, AAU
EuroSAM Annual Workshop	TBA	TBA	INSA

NATIONAL TECHNICAL EVENTS			
Name	Date	Venue	Partner planning to attend
IKT-Stark Regen Congress - SRC (HeavyRainCongress)	December 2021	Gelsenkirchen, Germany	IKT
35. Oldenburger Rohrleitungsforum (Oldenburg Pipeline Forum)	27-28 Jan. 2022	Oldenburg, Germany	IKT
Göttinger Abwassertage (Goettinger Wastewater Days)	15-16 Feb. 2022	Göttingen, Germany	IKT
Jornadas de la AEAS (Spanish operators, biannual)	23-25 March 2022	Córdoba, Spain	UDC
ASTEER annual Congress	14-16 June 2022	France	INSA, GRAIE
Jornadas de Ingeniería del Agua	2022	Cartagena, Spain	UDC
GRAIE - Conférence annuelle "Ville perméable" - "Sustainable City" Conference	October 2022, 2023, 2024	France	GRAIE, INSA
GRAIE -Conférence annuelle "Autosurveillance des systèmes d'assainissement" - "Wastewater systems monitoring" Conference	February 2022, 2023, 2024	France	GRAIE, INSA
German Water Association Rainwater Congress (DWARegenwassertage)	TBA	Germany	To be confirmed
21. Kölner Kanal und Kläranlagen Kolloquium (Cologne Sewer and Wastewater Treatment Plant Colloquium)	TBA	Cologne, Germany	IKT
CGLE Carrefour des gestions locales de l'eau - rencontre annuelle	TBA	France	GRAIE
EXHIBITIONS AND TRADE FAIRS OR OTHER INDUSTRY EVENTS			
Name	Date	Venue	Partner planning to attend
InfraTechGermany - Exhibition for Infrastructure	11-13 Jan. 2022	Essen, Germany	IKT
IFAT - Trade Fair for Water, Sewage, Waste and Raw Materials Management	May 30 - June 3, 2022	Munich, Germany	IKT, UDC
Chartered Institute of Water and Environmental Management Urban Drainage Group Annual Conference	TBA	UK	To be confirmed
Water Environment Federation's Technical Exhibition and Conference	TBA	TBA	To be confirmed
WaterEurope Innovation Week	TBA	TBA	To be confirmed
OPEN SCIENCE EVENTS			
Name	Date	Venue	Partner planning to attend
Famelab	2023	TBA	To be confirmed
Pint of Science Festival	2023	TBA	To be confirmed
European Researchers' night	Every year, September	Several countries	Several partners
ESOF	2022 or 2024	Leiden, Netherlands	To be confirmed

Día da ciencia na rúa	Every year, May	A Coruña, Spain	UDC
Fête de la Science	Every year, October	Several cities in France	Euronovia / GRAIE / INSA

## 1.6. IMPACT ASSESSMENT

Monitoring the impact of the different dissemination activities involves a systematic collection of data and reporting of information from all partners. This information serves to deliver the final verdict on the success of the dissemination process undertaken by the project.

In order to measure the success of the implemented communication and dissemination activities, a detailed communication and dissemination plan has been created in order to check that all activities are planned and are effectively taking place, integrating **Key Performance Indicators (KPIs)** to measure the impact of each dissemination and communication activity. KPI's are a measuring factor for the performance and progress of an activity, message, task, etc. towards its expected impact. Several KPIs have been defined for each communication activity. They will be used to assess the performance of the dissemination activities all along the project duration and re-orientate the dissemination plan if necessary, when KPIs are not matched and the expected impact not reached.

**The project communication and dissemination plan including the detailed list of communication and dissemination activities planned within the project, related KPIs and responsible partners, is available in Annex 1.**

In addition to quantitative KPIs, a number of **qualitative indicators** will be taken into consideration to understand the impact of the actions carried out, for example:

- Individual feedbacks obtained through satisfaction questionnaires sent to participants after project events
- Feedback obtained from users of the RIs
- Feedback on the project activities obtained via email or through the website and social media

By performing regular monitoring of the activities, it is possible to assess if the action plan is being carried out properly and on time. It will also be possible to see which activities had the biggest impact on the stakeholders (both in quantitative and qualitative terms) and to improve communication actions, if necessary.

## 1.7. TRACKING AND MONITORING OF THE ACTIONS

The partner in charge of communication (Euronovia) will oversee the task of tracking all the communication activities of the partners. At this scope, an Excel table composed of 3 different spreadsheets has been created in June 2021 to gather information related to the activities implemented by each partner, namely: Communication actions, scientific dissemination activities, scientific publications.

This document has been uploaded to the project [SharePoint platform](#) and all partners are being reminded to update it as soon as they are involved in a communication or dissemination action to keep track of all the activities implemented.

At the end of each reporting period this document will allow us to elaborate a dissemination impact analysis where we will evaluate the impact of the actions, the type and number of people reached and to check if KPIs planned have been met. If not, corrective measures will be undertaken.



Table 7: Overview of the online form tracking partners' communication and dissemination actions

Communication channel (please select from the drop-down list)	Name of the communication source/channel	Title	Date	Place	Links to the event or other online resource	Target Audiences						Number of people reached	Outreach level (please select from the drop-down list)	Partner in charge	
						Academic and researchers	Industry/Practitioners	Government/Policy-makers	EU/international networks	National technology networks	EU projects				General public/advocacy groups
1	Article in press	Água	Investigadores de la UDC lideran un proyecto europeo de estudio de sistemas de saneamiento urbano	April 2021	online	<a href="https://www.iniciativauniversitaria.com/actualidad/2021/04/24/saneamiento-urbano-revisio-n-48723992.html">https://www.iniciativauniversitaria.com/actualidad/2021/04/24/saneamiento-urbano-revisio-n-48723992.html</a>	x	x			x			National	UDC
2	Article in press	La Opinión A Coruña	El saneamiento urbano, a revisión	April 2021	online	<a href="https://www.laopinioncoruna.es/coruna/2021/04/24/saneamiento-urbano-revisio-n-48723992.html">https://www.laopinioncoruna.es/coruna/2021/04/24/saneamiento-urbano-revisio-n-48723992.html</a>	x	x			x	x		National	UDC
3	Interview	Corporación Radio e Televisión de Galicia	Interview to the project coordinator	April 2021	radio, online	<a href="https://www.crtvg.es/rg/destacados/a-tarde-a-tarde-do-dia-29-04-2021-5012510">https://www.crtvg.es/rg/destacados/a-tarde-a-tarde-do-dia-29-04-2021-5012510</a>	x	x			x	x		Regional	UDC
4	Newsletter	IWA Newsletter	Interested in conducting research and innovation projects on shared urban drainage experimental facilities in Europe?	May 2021	online	<a href="http://www.jcud.org/downloads_file/2021_JCUD_Newsletter_final.pdf">http://www.jcud.org/downloads_file/2021_JCUD_Newsletter_final.pdf</a>	x	x	x	x				International	UDC
5	Social media	Twitter	Twitter account of the project	May 2021	online	<a href="https://twitter.com/COUDlabs">https://twitter.com/COUDlabs</a>	x	x	x	x	x	x		International	Euronovia
6	Social media	LinkedIn	LinkedIn page of the project	May 2021	online	<a href="https://www.linkedin.com/groups/1397747/">https://www.linkedin.com/groups/1397747/</a>	x	x	x	x	x	x		International	Euronovia
8	Press release	UDC website	Investigadores de la UDC lideran un proyecto europeo de estudio de sistemas de saneamiento urbano	April 2021	online	<a href="https://www.udc.es/investigadores-da-escola-de-caminos-lidera-un-proyecto-de-estudo-de-sistemas-de-saneamento-urbano-con-socios-de">https://www.udc.es/investigadores-da-escola-de-caminos-lidera-un-proyecto-de-estudo-de-sistemas-de-saneamento-urbano-con-socios-de</a>	x	x				x		National	UDC
9	Interview	OSIL	Temas que ir cara sistemas más sostenibles e intelixentes	June 2021	press								x	Regional	UDC
10	News in website	INSA Lyon, laboratory DEEP website	INSA Lyon to take part in 44M Horizon 2020 project to build collaborative Urban Drainage research labs communities	August 2021	online	<a href="https://deep.insa-lyon.fr/fr/content/co-ud">https://deep.insa-lyon.fr/fr/content/co-ud</a>	x							National	INSA

## 2. EXPLOITATION STRATEGY

Creating marketable products from research output is becoming a requirement to boost the innovation potential of the research activity towards a constant evolution, in which universities and research centres are engaging with the non-academic/private sector. In its nature, Co-UDlabs holds the potential and is experienced for exploiting research outputs at various levels involving different types of organizations, such as water utilities, the SMEs in their supply chain, research centres as well as other public interest organizations, for the benefit of the final users of the RIs. The plan for exploitation will consider these different levels through the different aspects presented below:

- **Target groups identification:** lead (technology makers) and end users principally, and/or potential future competitors.
- **Lists of outputs to be exploited** and explanation on how to proceed with their development (see Table 8: Preliminary list below).
- **Definition of the exploitation strategy** (improvement of dissemination strategies, market and needs analysis, feasibility studies, research of funding, standardization, commercialization and transfer of knowledge, ...). This strategy will outline potential trends, technology scenario, partners and competitors in the areas of interest for the project. This will also include the implementation of performance indicators to assess the adequate developed valorization activities.
- **Methods of exploitation** – IPR strategy (patents, company creation, investor or equity driven technology development and sales, private public partnerships, etc). The conclusion of a fair and generally agreed Consortium Agreement (CA) before the start of the project represents an important first step towards a sound exploitation of the project results. Then, the range of different possibilities for exploitation should be studied in order to develop the appropriate plan, which takes also into account the nature of the partner(s) involved in the dissemination and exploitation and of their financial capability to fund marketization conditions.

### 2.1. PRELIMINARY LIST OF RESULTS WITH POTENTIAL FOR EXPLOITATION

Concrete measures for exploitation have already been identified by the consortium according to the exploitable results of the project. The major project outputs already identified at the proposal stage, that are considered to have the most value for exploitation, are indicated in the table below.

*Table 8: Preliminary list of results with potential for exploitation*

Type of results to be commercially or non-commercially exploited	Lead user, target groups	Exploitation	Dissemination to ensure the exploitation
Creation of open data-sets and standardized methodologies for data management in WPs 2, 6, 7, 8 and their aggregation in the data management plan (WP4)	Basic and applied Researchers, Engineers, Technology Developers	Open databases Data management plan	Dissemination in open access, Lectures and courses, Publication through websites, press releases
Demonstration prototype for drainage solutions based on water infiltration (Soil designer WP8)	Water utilities Design Engineers, SMEs	Further investment commercialisation of the technology, creation of patent and know-how, IP	Dissemination in Industrial Conferences, participation to trade fairs. Websites and press releases
Reports and data on the evaluation of new monitoring solutions to be developed in the WP6.	Basic/applied researchers, water utilities SMEs	Through the publication of scientific papers and evaluation reports	Participation to Scientific conferences to present the publications, project website

			and open access data bases, press releases
Creation of new services or products on data management, buried assets evaluation and rehabilitation (WP 2, 6, 7)	PhD students, post-doctoral Researchers, water utilities, SMEs from outside water sector, e.g. Microsoft/Siemens	Creation of start-ups, patents, know how, licensing, service sales	Support to young researchers in the creation of start-ups. Media information for water utilities, SMEs and other sector companies
Data management toolboxes and training content developed in the WP2 and WP3	Early-stage researchers, students, water engineering consultants,	Integration of the training content in university degree courses and industry training courses	Contacts with universities dealing with urban drainage courses to promote the training content
Strategic agenda on urban drainage research infrastructures	The policy makers (national and international level)	Inputs provided to policy makers	Promotion of the results in the several conferences and other open events at national levels

This preliminary list will be regularly updated by the project partners through a questionnaire that will be sent to them annually by Euronovia, aiming to track and identify the project results to which they participated. A Knowledge Portfolio will be also prepared within the end of the first year to gather knowledge already available before the project (including how to access it in line with the Consortium Agreement) and new knowledge generated by the project. The Knowledge Portfolio will be submitted for review to the Innovation Advisory Board (IAB), which will suggest a first list of exploitable results (KERs), make comments on the tracks to follow to stay in line with the objectives of the project and provide advice on how to better exploit the results from the JRA and TA according to the status of the market. The IAB will also help to foster exchanges with external industrial players regarding the exploitation potential and options.

In addition, the consortium has planned to apply for the services of the Horizon Results Booster to receive expert guidance and training to improve the project strategy towards effective identification and exploitation of key exploitable results. In the framework of this service, Euronovia is planning to organise an Exploitation strategy seminar (ESS) around mid-term. This seminar, led by an expert, will aim to make sure the consortium has understood the concept of KER and has identified the right KERs of the project. The main outcome of this seminar will be a series of tools (characterisation table, priority map, exploitation roadmap, recommendations) and guidelines for the consortium to make the most out of the exploitation activities of the project. Other modules of this tool will also be considered (e.g. Business Plan Development).

## 2.2. ACTIONS PLANNED TO ACHIEVE THE EXPLOITATION OF RESULTS AND IMPACTS OF THE PROJECT

Several types of actions are planned by the consortium before and after the end of the project to achieve the exploitation of results, as showed in the table below.

*Table 9: Actions planned to achieve the exploitation of results*

Type of actions	Description	Targeted groups
<b>During the project</b>		
Events	Organisation of several training workshops (industrial workshops and summer schools) addressing the main technology application of the RI project. Creation of training content.	The R&D sector, the academic and non-academic organizations with specific players in the field, the public at large, related EU projects

Events	Organisation of Novatech side event (WP1). Participation in practitioners and policy-makers national and international events (WP4)	The different international Urban Drainage research community users and policy makers.
Events	Local and national meetings to optimize the transmission of knowledge and know how to operators.	The different Urban Drainage community users
Events	Organisation of one final info day: the impact and further exploitation of the project results will be introduced to a wider public. Virtual attendance will be allowed.	Public at large, policy makers, media, and all other stakeholders
Internal event	Exploitation and IPR workshop. Potential licensees and water utilities will be invited.	Consortium
Internal event	Participation to IPR webinars organized by the IPR EC Helpdesk	Consortium (at least one webinar during the course of the project)
Engagement of young researchers	New recruitment and engagement of 8 PhD candidates and 5 post-doctoral positions on Co-UDlabs who should be especially relevant candidates for the creation of innovative start-ups.	These PhD students and post-doc positions will be especially targeted related to all actions on exploitation and IPRs. A special focus will be put on training them for innovation creation.
Work package tasks	Activities of WP2 (Smart governance) will be dedicated to provide information and evidence to support the revision of EC Directives related with water sector <sup>1</sup> (e.g. Bathing water, ICT, Nature Based Solutions, WWTD, etc).	Policy makers and industrials
Collaborations with other projects	Results containing fundamental information, system evaluations, innovative inputs, network publication	Stakeholders from national, EU and international funded projects. EU wide bodies such as WaterEurope or EurEau.
Creation of an International Advisory Board	Ensure the management of innovation within the consortium and guarantee that all effective measures are taken to maximize the dissemination and potential exploitation of the results during and after the project. This board will include key actors in the target areas and will be used as a tool to advise on related issues such as public acceptance, local regulations, set up of adequate and fair incentive schemes and the exploitation of the project results.	Consortium actors in the development of Key Exploitable Results
<b>After the project</b>		
Research development	<b>Future internal research at the partners' institutions</b> will be carried out to ensure the further sustainability of the technology development and upgrade. The results will be used as background for future collaborative innovation projects. This should take place potentially through new EU funding (like the COST actions to favour networking on a targeted R&D topic) or national funding targeting knowledge transfer between academia and industry.	Consortium partners and new key actors in the field, especially targeting the industry actors

<sup>1</sup> <https://ec.europa.eu/info/law/better-regulation/have-your-say>

Creation of new services and products	The new services and products free software tools and methods for data handling (WP2, WP6) could be exploited by the SMEs of the consortium to propose new services or with the creation of spin-off and start-up companies.	SMEs, end users of the project, external industry actors
Further funding	PPP, EU funding for innovation (especially the SMEs instruments, such as Eurostars SMEs instrument <sup>2</sup> ), public procurement, venture capitals, private investors, banks, business angels will be sought for, to ensure the <b>further development of the RI</b> .	End users of the project, investors
Standards	The possibility for providing inputs to European standards in the manufacturing sector will be also deepened.	Standardization sector
Policy Roadmap	A wide dissemination of the roadmap will ensure that stakeholders engage with the project results even after the end of the project.	Industrial and policy makers, including international policy makers like the IEA or IRENA
Open databases	Permanent access to the main results of the project in different databases, including OpenAIRE.	All interested stakeholders

### 2.3. PROTECTION OF RESULTS AND IP

The overall Intellectual Property (IP) approach of the project is in line and builds on the principles and guidelines described in the European Commission Recommendations on the management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations, along three main aspects: (i) internal IP management; (ii) knowledge transfer activities; (iii) collaborative and contract research.

For internal IP management, a Consortium Agreement has been signed between all partners to address all relevant issues related to IP and the results generated during the project (access rights to background and foreground necessary for the execution of the Project, rules for dissemination and use of own knowledge). The Consortium Agreement (CA) complements the rules of the Grant Agreement. In particular, treatment of partners' background, the disclosure of new ideas with potential commercial interest, the ownership of research and results, record keeping and confidentiality, are all elements tackled in the consortium agreement.

In general, IP will be the property of the partners and facility users that have contributed to the creation of the knowledge. The degree of ownership will depend on the degree of contribution to the IP. This general rule will apply as long as it does not violate national legislation, specific agreements for scientific publication, and specific agreements among partners regarding ownership of IP. Partners that have jointly carried out work generating foreground and where their respective share of work cannot be ascertained shall have joint ownership of that foreground and may establish appropriate joint ownership agreements or license agreements. This task is considered essential as a guarantee for the good implementation of the project.

Further to the draft of the CA, the coordinator will take an active role in providing advice and recommendations to the project partners and implement innovation management actions. If relevant, for any protection of IPR regarding the results generated during the project, UDC (or in case, an entrusted external IP attorney), will be responsible for filling the registration.

<sup>2</sup> <https://www.eurostars-eureka.eu/>

As regards to the rules for dissemination activities, any beneficiary will have the possibility to object to dissemination if it can show that it would suffer significant harm (in relation to background or results). In this case, the results may not be disseminated unless appropriate steps are taken to safeguard the interests at stake. For the dissemination, the Grant Agreement rules will be followed (45 days prior notice before any dissemination).

At partner level, there will be a periodical review of the results created by each partner and all partners will be encouraged to protect any knowledge that has potential commercial applications. Questionnaires will be sent to all partners to assess the knowledge created and their opinions on the potential exploitation plan to adopt and how to protect the knowledge. Further to the start of the project, the coordinator will make sure that all partners are aware of the IP policy (presentation at the Kick-off meeting) and that the partners support the Code of Practice concerning the management of IP as stated by the recommendation from the European Commission (i.e. to better convert knowledge into socio-economic benefits, to more effectively exploit publicly-funded research results with a view to translating them into new products and services, ...). A special workshop will be organized for the partners of the consortium to deal with exploitation and the protection of results and boost the understanding of the consortium on these matters.

In addition, a Facility User Agreement will be signed for TA access of the different User groups with the Facility provider to address all the relevant issues related with the access and related with the IP and results generated during the project. This agreement is signed just for the access to the RIs and define Open access data policies.

## 2.4. THE INTERNATIONAL ADVISORY BOARD

The Co-UDlabs consortium is accompanied and supported during the project lifetime by an International Advisory Board. The IAB has been constituted at the proposal stage and it brings powerful stakeholders to the table, such as EurEau (EU level network of water operators), IKT Association of Industry (70 companies from the private), SUEZ France (global expert in the water and waste sectors), RTO SINTEF (an independent research organization with 2000 employees from 75 countries), and two leading scientists from Université Laval (Canada) and University of New South Wales (Australia).

These members will provide valuable feedback on the project, introduce challenging requirements to be considered, and have a major impact on the project's sustainable development. The IAB will also foster exchanges with external industrial players regarding the exploitation potential and options, it will help tracking the results from the project in order to advise and support the consortium on how to go further in the PEDR. Each year the knowledge Portfolio filled in with the Key exploitable Results will be submitted for review to the IAB which will then make comments on the tracks to follow to stay in line with the objectives of the projects and especially provide advise on how to better exploit the results according to the status of the market.

## CONCLUSIONS

Co-UDlabs communication and dissemination actions set off at a good pace, with a PR campaign disseminated by the whole consortium, several articles published online (partners websites and social media) to launch the project and active project accounts on LinkedIn and Twitter. A unique visual identity, tools and templates are available to the Co-UDlabs consortium and a communication plan has been defined and approved by all partners.

The project website has just been launched, with useful content, material and news. It is a coordinated landing point for the project that all partners are committed to update with the latest news on upcoming events and activities.

In the past weeks an important communication effort has been requested to the whole consortium in relation to the first Transnational Access campaign and it will continue in the next weeks with the organisation of a workshop and a hackathon and the launch of the first call for transnational access.

The involvement of all partners in communication and dissemination will be essential to ensure the success of the project.

## ANNEX 1 – COMMUNICATION AND DISSEMINATION PLAN

## Co-UDlabs Communication and dissemination plan

Dissemination or communication channel	Tool	Purpose and expected impact	When (and where, if relevant)	Target audiences						KPI	Target	Actual	Partner(s) in charge
				Academics and researchers	Industry / Practitioners	Government / Policy-makers	EU and international networks	National technology networks	EU projects				
Events to be organised by the project partners	2 Early-stage researchers seminars	Enhance interaction between academics, sharing ideas and the promotion of common experimental protocols	2022 and 2024	X						Number of participants	20		UDC, USFD
	25th European Junior Scientists Workshop (EJSW) on UD monitoring	Junior scientists to present and discuss their work with senior researchers	16-21 May 2022	X						Number of participants	22		INSA
	PhD course on Sewer Processes	Give students insight and knowledge on the most recent advances of sewer process modeling and applications to real-world use.	2023	X						Number of participants	40		AAU
	Industrial workshop on flow rate determination of pumping stations and hydraulic structures (1 day)	Train Industry professionals and practitioners on UDS	2022		X			X		Number of participants	20		DEL
	Uncertainty assessment in UD monitoring data (2 days)	Train Industry professionals and practitioners on UDS	2023		X			X		Number of participants	minimum 12		INSA
	Applied course on UD metrology (4 days)	Train Industry professionals and practitioners on UDS	2024		X			X		Number of participants	12		UDC
	2 IKT-association practice workshops (2 days)	Exchange of knowledge and experience between industry and public sewer network operators	2021 and 2024	X	X			X		Number of participants	20		IKT
	Webinars and online lectures	Provide a better understanding of specific and emerging monitoring techniques in Urban Drainage	From the 2nd year of the project until the end	X	X		X	X	X	Number of webinars	6		IKT and all research institutions of the consortium
										Number of attendees	30		
	Side event at the Sewer Processes and Networks (SPN) conference	Creation of a group of “early adopters” users	Summer 2022 (Graz, Austria)		X		X	X		Number of participants	30		GRAIE
	Side event at the NOVATECH conference	Reinforcement of the group of “early adopters” users	July 2023 (Lyon, France)		X		X	X		Number of participants	30		GRAIE
	2 webinars and 2 hackathons	Launch the access campaigns and present the project. Promote the RI services and access to RIs programme.	Before the calls the access to the research infrastructures	X	X		X	X		Number of attendees	60	1st webinar: 100	UDC
	2 dissemination workshops on smart governance		Side events of IWA specialized working groups conferences or meetings		X	X	X	X	X	Number of participants	30		EAWAG
3 Workshops related with results of JRAs	Raise awareness of the scientific outcomes of the project	Side events of IWA specialized working groups conferences or meetings	X	X		X	X	X	Number of participants	40		INSA, USFD, UDC	
Final Info Day	Introduce the impact and further exploitation of the project results to a wider public	At the end of the project	X	X	X	X	X	X	Number of attendees	At least 50		Euronovia, UDC	



Participation in external events and conferences	Scientific conferences	Promote the scientific and technical results, raise awareness in the scientific and practitioners community, interact with other related technologies	From the 2nd year of the project until the end	X	X	X	X	X			Number of conferences	At least 15 conferences		All research partners
	National technical events	Disseminate Co-UDlabs products and services in the non-scientific UD community	2022, 2023, 2024, 2025		X			X			Number of events	10		All partners
	Fairs in innovation and technology related events	Disseminate project outputs and engage users, collect feedback	2022, 2023, 2024, 2025		X		X	X	X		Number of exhibitions	3		All partners
	Open-science events	Raise awareness of the project among the general public	2022, 2023, 2024, 2025						X	X	Number of events	10		All partners
Communication/dissemination material and activities	Project branding (logo, visual identity, communication templates, project leaflet, etc.)	Communicate about the project in a uniform, consistent, and professional manner	At the beginning of the project	X	X	X	X	X	X	X	N/A	N/A		Euronovia
	Communication package (ppt presentation, poster, project banner (kakemono) and a one-page project description)	Achieve a broader audience with water operators, utilities and other stake-holders	M6	X	X	X	X	X	X	X	N/A	N/A		Euronovia
	Flyer	Inform about the project and the TA	M6	X	X	X	X	X	X	X	Number of flyers distributed	2000		Euronovia
	Brochure	Inform about the project and its outputs	TBC	X	X	X	X	X	X	X	Number of brochures distributed	2000		Euronovia
	Newsletter	Inform about project updates and activities	Every 6 months, starting M6	X	X	X	X	X	X	X	Number of issues Number of subscribers	8 100/newsletter		Euronovia Euronovia
	Press release	Inform about the project Promote the project	At the start and at the end of the project	X	X	X	X	X	X	X	Number of press releases	2		Euronovia
	Articles in specialized magazines	Inform about the project Promote the project	Whole project duration	X	X		X	X			Number of articles	2		All partners
	Timeline infography	Inform about the project main outcomes	TBC	X	X	X	X	X	X	X	Number of infography	1		Euronovia
	1 Motion design video	Inform about the project	TBC	X	X	X	X	X	X	X	Number of views on Youtube	500		Euronovia
	Website	Inform about the project Promote the project	Whole project duration	X	X	X	X	X	X	X	Number of visits Number of news	100/month 1 news/month		Euronovia
	LinkedIn page	To make science more accessible to a wider public, to engage the audience	Whole project duration	X	X	X	X	X	X	X	Number of members Number of posts	200 1/month		All partners (leader: Euronovia)
	Twitter account	To make science more accessible to a wider public, to engage the audience	Whole project duration	X	X	X	X	X	X	X	Number of followers Number of tweets	200 1/week		All partners (leader: Euronovia)
	Youtube channel with videos and interviews	To make science more accessible and inform the public	from M12	X	X	X	X	X	X	X	Number of videos Number of views /downloads	15 500/video		IKT and all research institutions of the consortium
	Media press kit	Inform about the project Massive communication about the outcomes and impacts of the project	M24 and M48	X	X	X	X	X	X	X	Number of press kit	2		Euronovia
	Public relations and media coverage	Inform about the project and its activities	Whole project duration			X	X	X	X	X	Number of external articles in the media	15		All partners
	Publications	Scientific publications (peer-reviewed) and related datasets	Promote the scientific and technical results of the project, transfer of knowledge, share the results in open databases	From 2022	X	X						Number of publications Number of datasets Number of visits / downloads on Zenodo	15 20 3000	
Technical papers (international and national journals)		From 2022			X		X	X			Number of publications	8		All research partners
Conference proceedings		From 2022		X	X		X	X			Number of publications	15		All research partners