



Co-UDlabs

DELIVERABLE 10.4 PROJECT MANAGEMENT HANDBOOK

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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 objective 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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EXECUTIVE SUMMARY

This document is Deliverable 10.4, “Project Management Handbook”, of the Co-UDlabs project, funded under the European Union’s Horizon 2020 research and innovation programme and under Grant Agreement No 101008626. The Deliverable is drafted within the tasks of Work Package 10, “Management and Coordination”. The lead beneficiary of the Work Package is the University of A Coruña (Universidade da Coruña, UDC). UDC is the main author of this Deliverable.

The aim of this document is to establish a common management and coordination standard for the whole consortium. The Project Management Handbook (PMH) is designed to be the document of reference for the functioning of the project and for the seamless implementation of its tasks and objectives. The PMH is expected to provide:

- A thorough overview of the main reference documents upon which the Project is established, including the Grant and Consortium Agreements;
- A description of the Consortium main bodies, their functions, their rules of procedure, and their composition
- A thorough overview and description of the Consortium partners, the organisation of work into Work Packages, and the workplan and tasks of the Project;
- A description of the procedures, processes, and guidelines for the smooth functioning of the Project’s day-to-day implementation and collaboration, including a description of available communication and dissemination tools and platforms;
- A list of responsibilities, duties, and rights for both the Consortium partners and any third parties interacting with them in the development and implementation of the Project;
- A thorough overview of the procedures and processes for reporting on the Project’s implementation and the achievement of its objectives and milestones, including information on internal formal and informal reporting and communication with the European Commission as the funding entity of the Project.

The PMH will remain available at all times to all members throughout the duration of the Project as the main guidance tool for the definition and application of procedures, rules, limitations, rights, and obligations in the work that the partners are doing for the successful implementation of the Project. The PMH is a core task of the Project’s Management and Support Team (managed by UDC as Project Coordinator), which will be available to all members for any further clarifications and guidance about the functioning of the Consortium and the execution of the Project’s workplan.

1. INTRODUCTION

The project ‘Collaborative Urban Drainage research labs communities’ (Co-UDlabs) is funded by Grant No. 101008626 of the European Commission for a period of 48 months starting on May 1, 2021. The project has been designed to integrate research and innovation activities in the field of urban drainage systems, by providing trans-national access to the partners’ facilities, conducting interlinked Joint Research Activities for a wider uptake of innovative solutions and green-blue infrastructure, and developing innovative smart monitoring technologies and digital water analysis tools.

The project is coordinated by **Universidad da Coruña** (UDC, Spain). The project’s partners are: **University of Sheffield** (USFD, United Kingdom); **Stichting Deltares** (Deltares, Netherlands); **Eidgenössische Anstalt für Wasserversorgung Abwasserreinigung und Gewässerschutz** (EAWAG, Switzerland); **Institut für Unterirdische Infrastruktur GGmbH** (IKT, Germany); **Institut National des Sciences Appliquées de Lyon** (INSA, France); **Aalborg Uniiversitet** (AAU, Denmark); the **Groupe de Recherche Animation Technique et Information sur l’Eau** (GRAIE, France); and **Euronovia** (Euronovia, France).

As project coordinator, UDC is also in charge of Work Package 10, “Management and Co-ordination”. As part of the obligations of the WP, UDC is expected to fulfil Deliverable 10.4, “Project Management Handbook”, which is the object of this document.

The Project Management Handbook (hereinafter, **PMH**) is the main reference document for the organisation, functioning and design of the project’s workflow, communication, and reporting. It is expected to provide guidelines, directions, and instructions for all the tasks that the coordinator and the partners will have to carry out in the framework of Co-UDlabs.

The Handbook’s contents are structured as follows:

- The key reference documents of the Project
- The organisation of the Consortium
- The mechanisms for internal communication and workflow
- Responsibilities and duties of partners
- The reporting process and its outputs
- Communication with the European Commission
- Dissemination and intellectual property standards and procedures.

UDC is the institution in charge of this Deliverable. Accordingly, all comments and feedback should be addressed to UDC as project coordinator, to the following contacts: jose.anta@udc.es and a.ciambra@udc.es.

2. REFERENCE DOCUMENTS OF THE PROJECT

This section briefly summarises the key contents of the core reference documents of the Project: the Grant Agreement, the Consortium Agreement, and the Financial Helpdesk and financial reference documents. Project partners can refer to this Section for guidance about the main baseline documents according to which the consortium and the project have been defined and structured.

The Grant Agreement, the Consortium Agreement, and the financial reference documents will be available at all times in their approved and signed form to all partners. A user-friendly location on the project's digital communication platform (Co-UDlabs SharePoint) will be made available by the Project Coordinator. Any partner meeting any difficulties in accessing the reference documents should contact the Project Coordinator for support.

2.1. GRANT AGREEMENT

The Grant Agreement is the founding document for any European Commission-funded project, the bilateral agreement between the granting institution and the consortium that will carry the project out. Co-UDlabs is funded according to Grant Agreement No. 101008626 as signed by the European Commission's Directorate-General for Research and Innovation and the nine partners of the Co-UDlabs consortium and entered into force on March 3, 2021.

The Grant Agreement is composed by two main parts: the Terms and Conditions; and the Agreement's Annexes. The document is structured as follows:

- **Terms and Conditions** (pages 1-85).
- **Annex 1: Description of the Action** (pages 86-241)
 - **Part A: Research and Innovation Action** (pages 86-153)
 - **Part B: Project Proposal** (pages 154-241)
- **Annex 2: Estimated Budget for the Action** (pages 242-248).
- **Annex 3: Accession Form for Beneficiaries** (pages 249-256)
- **Annex 4: Model Financial Statement for Beneficiaries** (page 257)
- **Annex 5: Model for the Certificate on the Financial Statements** (pages 258-282)
- **Annex 6: Model for the Certificate on the Methodology** (pages 283-297)

The rules set out in the Terms and Conditions are the foundational guidance for all the project's rights and obligations, rules of procedures and limitations. Part A of Annex 1 sets out all the agreed contents of the projects, including the list of beneficiaries, the Work Packages and their respective tasks and obligations, and the project's Deliverables and Milestones. The expected budget defines the financial framework in which the project is expected to be fulfilled. Annexes 3-6 provide the templates for mandatory documentation that all or some of the partners will be required to submit at some point of the project's lifetime.

2.2. CONSORTIUM AGREEMENT

Within the framework defined and structured by the Grant Agreement, all project beneficiaries agree on and sign the Consortium Agreement, which is considered valid from the official project start date (Effective Date), that is, May 1, 2021.

The Consortium Agreement includes the main definitions, rules, rights and obligations of all project partners in their relationship among each other for the effective and successful realisation of the project and achievement of its expected results.

The Consortium Agreement is structured in the following sections:

- 1) Definitions
- 2) Purpose
- 3) Entry into force, duration, and termination
- 4) Responsibilities of the Parties
- 5) Liability towards each other
- 6) Governance structure
- 7) Financial provisions
- 8) Results
- 9) Access rights
- 10) Non-disclosure of information
- 11) Miscellaneous
- 12) Signatures

Section 6 on ‘Governance structure’ provides definitions, rules of procedure, and operational details on the Consortium Bodies and specific roles of partners and institutions. Part of this information is also addressed in the PMH in Section 3 below. Section 7 on the Consortium’s financial provisions provides additional information on cost justification and payments.

2.3. FINANCE HELPDESK AND ADDITIONAL WALKTHROUGH DOCUMENTS

The Project Coordinator will also oversee the drafting of the financial reports that are required throughout the implementation of the project (see also Section 6.3 below). The Project Coordinator will provide partners with assistance and advice on financial reporting requirements whenever needed and will ensure coordination among administrative staff so that all financial claims can be submitted without delay or issue and any potential deviation is identified and addressed timely.

Specifically, in relation to the financial management of the project and the duties and responsibilities associated with each partner’s role in the project, the European Commission is also providing assistance on financial reporting, requirements and documentation through an official platform, the Finance Helpdesk, which is publicly available online.¹

For the smooth and effective development of the project, the European Commission has made a wealth of information available to all partners and participants in European projects within all the frameworks that the institution is financing through its various programmes:

¹ The platform is accessible at this link: <http://www.finance-helpdesk.org/>.

- The archive of reference documents for *all* European Commission's programmes, sorted by funding period, is available at this link: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/reference-documents>;
- Specific help on Horizon 2020 projects is available here: https://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm

3. ORGANISATIONAL STRUCTURE OF THE CONSORTIUM

The structure of the Consortium is defined by the reference documents, in particular by Section 6 of the Consortium Agreement and Section 3.2 of Part B of the Grant Agreement. The Consortium is structured as in Figure 1.

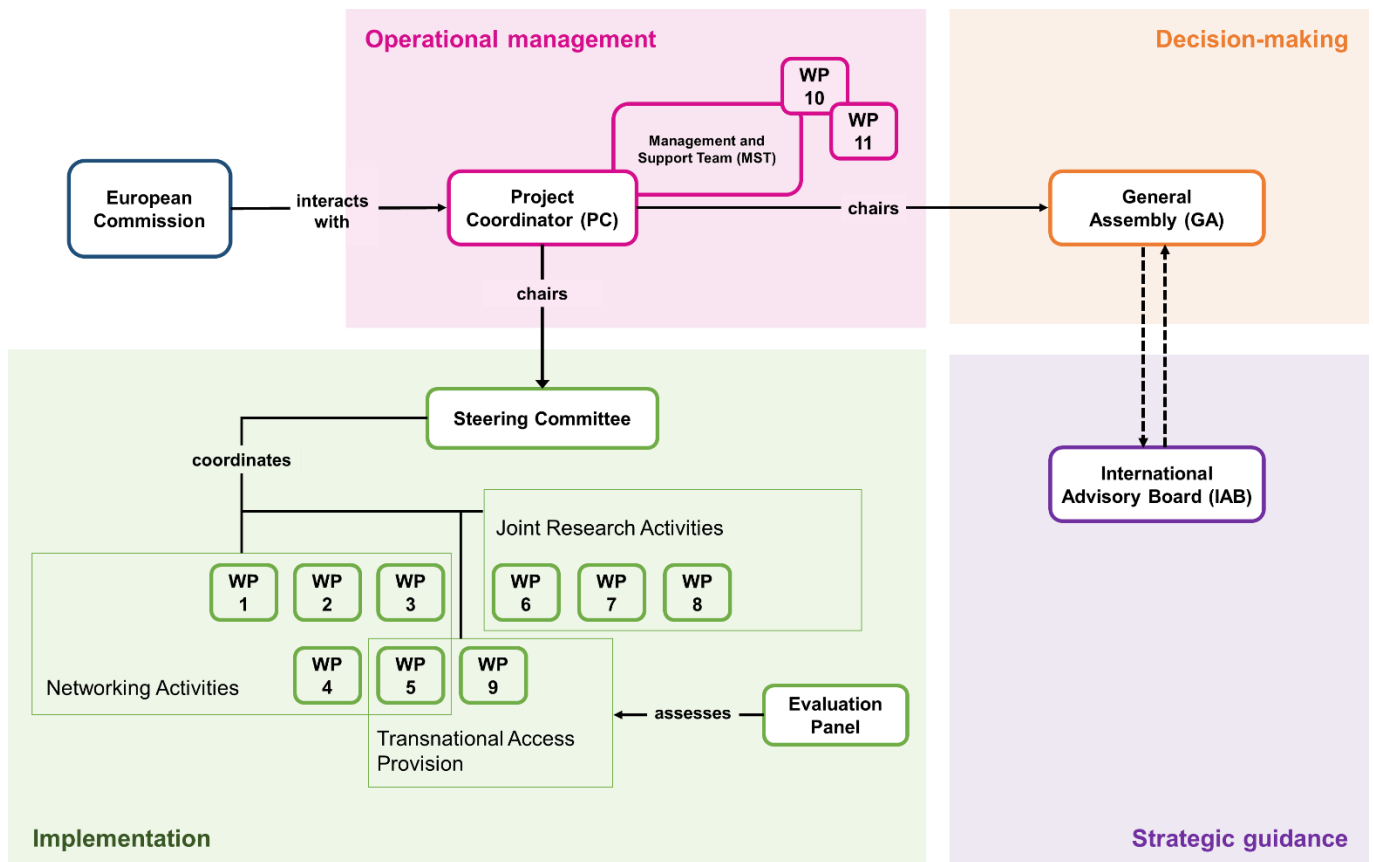


Figure 1. Co-UDlabs structure and consortium organisation

The organisational structure of Co-UDlabs is based on four main dimensions:

- **Decision-making** (main body: General Assembly)
- **Operational Management** (main bodies: Management and Support Team and Project Coordinator)
- **Implementation** (main body: Steering Committee)
- **Strategic guidance** (main body: International Advisory Board).

3.1. CONSORTIUM BODIES

The structure of the project, as defined in the Grant Agreement, identifies the following key bodies and actors involved in the management, execution, and review of Co-UDlabs:

- Project Coordinator
- Management and Support Team
- General Assembly
- Steering Committee
- International Advisory Board

- Evaluation Panel

These bodies and their roles and responsibilities are defined as follows.

3.1.1. Project Coordinator

The University of A Coruña (*Universidade da Coruña*, UDC) is Co-UDlabs' Project Coordinator. It is the direct intermediary and interlocutor of the European Commission with the rest of the consortium and for the whole duration of the project. As such, it reports to the General Assembly and the Steering Committee, and it is the sole partner authorised to execute Co-UDlabs' project management tasks. The Project Coordinator is an equal partner of the consortium and enjoys the same rights as the other partners. It is, however, subject to additional responsibilities:

- It is required to **monitor that the Action is implemented properly** [Articles 7 and 41.2.b GA];
- It is the acting **intermediary for all communications between the beneficiaries and the European Commission** and it is **required to inform** the European Commission and the Consortium about any events or circumstances that may affect the execution of the project and/or the Grant Agreement [Article 17 GA];
- It is **required to submit the Deliverables** identified in the project's Description of Action (Annex 1 of the Grant Agreement) and review compliance with the drafting and submission protocols and procedures [Article 19.1 GA];
- It is **required to submit** [Article 20.1 GA]:
 - **Periodic Financial and Technical Reports** within 60 days after the end of each reporting period (months 18, 36 and 48) [Article 20.3 GA];
 - **Final Financial and Technical Reports** within 60 days after the end of the last reporting period (M48, in addition to the M48 periodic reports).
- It is the **recipient of all transfers of funds from the European Commission** and is **required to distribute the payments to the rest of the beneficiaries** without unjustified delay [Article 21.7 GA] and must inform the Commission of the amounts paid to each beneficiary when required under the Agreement (Articles 44 and 50) or requested to do so.

3.1.2. Management and Support Team

The Management and Support Team (MST) is led by UDC as Project Coordinator and is composed by the project coordinator and the European project manager. The MST will also coordinate extensively with the **legal, administrative, and financial personnel of the Project Coordinator** institution (UDC). As identified by the Grant Agreement, the main tasks of the MST are as follows:

- Supporting the **day-to-day administration** and management of Co-UDlabs;
- Organise the required **meetings of the consortium**, assist in the definition of the **agenda** and provide **minutes** of the meetings;
- Provide **assistance** to all partners as regards **administrative, financial, and regulatory issues** and the relationship with the European Commission;
- Collect and review all documentation required to **monitor that the project is being implemented adequately** and the WP tasks are being carried out;
- Coordinate the **preparation of all reports to the European Commission** and all internal reporting activities;

- Collect **deliverables for submission** to the European Commission
- Maintain the **project’s calendar, planning, reminders, and schedules** updated and easily available to the whole consortium, especially through the SharePoint platform, which will be always accessible to all partners.

3.1.3. General Assembly

The General Assembly is the ultimate decision-making body of the project. It is composed by one representative of each partner institution (General Assembly Members [Article 6.3.1.1.1 Consortium Agreement]). The General Assembly is responsible for ensuring the correct allocation of the project’s resources and the successful attainment of its objectives and expected results. It will also review the process of implementation of the project’s actions and see that all deliverables and milestones are achieved according to the correct application of all procedures. The General Assembly can also agree on additional procedures to review the technical and financial progress of the project.

The General Assembly will meet at least once a year. An **extraordinary meeting** of the General Assembly can be convened at any time upon written request by the Steering Committee or one-third of the General Assembly Members. **The Project Coordinator will chair the General Assembly meetings.** The Management and Support Team will oversee minute-keeping and the organisational details of General Assembly meetings.

Voting procedures require that:

- **No decision** or deliberation be made by the General Assembly unless **at least two-thirds (2/3) of the membership are present** or represented in the meeting;
- Each General Assembly Member have **one vote**;
- All decisions be made by **a qualified majority of two-thirds (2/3) of votes cast.**

3.1.4. Steering Committee

The Steering Committee is the **main implementation body of the project** and, as such, oversees the correct execution of its tasks. According to Article 6.3.2.1 of the Co-UDlabs Consortium Agreement, the Steering Committee is composed of **the Project Coordinator and all Parties** as appointed by the General Assembly. It is required that **all Work Package Leaders** be represented in the Steering Committee. Institutions that do not lead a Work Package are represented by Scientific Coordinators. Accordingly, the Co-UDlabs Steering Committee is composed as described in Table 1.

Table 1: List of Co-UDlabs’ Steering Committee members

Institution	Representative	Role
1 UDC	Jose Anta Álvarez	Project Coordinator Leader WP5
1 UDC	Luís Cea Gómez	Leader WP8
1 UDC	Jerónimo Puertas Agudo	Leader WP9
2 USFD	Simon Tait	Leader WP7
3 DEL	François Clemens	Leader WP3
4 EAWAG	Jörg Rieckermann	Leader WP2

5	IKT	Thomas Brueggemann	Scientific Coordinator
6	INSA	Jean-Luc Bertrand-Krajewski	Leader WP6
7	AAU	Jesper E. Nielsen	Scientific Coordinator
8	GRAIE	Elodie Brelot	Leader WP1
9	EURO	Laura De Nale	Leader WP4

The Committee is required to **collect information on the progress of the project** and **ensure compliance** with the consortium’s work plan. **The Steering Committee reports and is accountable to the General Assembly.** It is also in charge of implementing the decisions that are made by the General Assembly. The Steering Committee will also support the Project Coordination in the organisation of meetings with the European Commission and the preparation of joint communication and dissemination materials.

The Steering Committee is required to meet at least twice per year, even though it is recommended that it meets quarterly. **The Project Coordinator will chair the Steering Committee meetings.** The Management and Support Team will oversee minute-keeping and the organisational details of Steering Committee meetings.

Voting procedures require that:

- **No decision** or deliberation be made by the Steering Committee **unless at least two-thirds (2/3) of the membership are present** or represented in the meeting;
- **Each partner institution** represented in the Steering Committee have **one vote**;
- All decisions be made by a **qualified majority of two-thirds (2/3)** of the votes cast.

3.1.5. International Advisory Board

The implementation of the project will be supported by an **International Advisory Board (IAB)**, an external institution which will play a role of **strategic planning and impulse**, evaluating the project’s performance and **providing recommendations to streamline its execution.** The IAB was also appointed to provide Co-UDlabs with a source of **feedback and guidance from the larger community of stakeholders** in the topics of reference of the project’s partners and objectives. Accordingly, the IAB is also expected to **contribute to the communication efforts** of the consortium, supporting the project’s presence and visibility before the European and international publics, as well as the **establishment of synergies and effective alliances** with partners in the industry, research and development institutions, and related market sectors. Accordingly, the consortium appointed two representatives of wastewater operators, two representatives of academic institutions, one representative of the industry, and one representative of a research and technology organisation.

Table 2. Membership of Co-UDlabs’ International Advisory Board

Name	Institution
Ana Deletic	Queensland University of Technology (Australia)
Edvard Sivertsen	SINTEF (Norway)
Jo Severyns	EurEau (Belgium)

Peter Vanrolleghem	Université Laval (Canada)
Angela Pfister	EGLV (Germany)
Thibaud Maruejols	Suez (France)

The activities of the IAB are included in Work Package 4. **All members of the IAB** (see Table 2) as representatives of their own institutions have **signed a non-disclosure agreement (NDA)** with UDC as a representative of the Co-UDlabs consortium. The signed NDAs are safeguarded by UDC as Project Coordinator.

The IAB will meet annually to review progress, impact, and results of Co-UDlabs. The IAB meetings will be organised **compatibly with the schedule of the General Assembly**.

3.1.6. External Evaluation Panel

Among the main tasks of Co-UDlabs is **the establishment of a trans-national access framework for the development of research proposals** in the installations and facilities managed by the project's members. Access to facilities will be awarded to selected proposals received through **competitive international and fully public calls for proposals** that will be published at different stages of the project's development. These activities are managed in Work Package 5. Tasks also include the appointment of an independent, **External Evaluation Panel (EEP)** which will **evaluate all submitted proposals** and select those that meet pre-set requirements in terms of feasibility and scientific merit. Only selected proposals will be **granted access to the research infrastructure**. The evaluation process will be peer-reviewed. The EEP will be gender-balanced and **have no affiliation whatsoever** with the project and/or its partners in order to avoid any conflicts of interest.

3.2. PARTNERS

Co-UDlabs involves nine partners from seven European countries (including two non-EU countries, namely the United Kingdom and Switzerland).

- 1 University of A Coruña (UDC)
- 2 University of Sheffield (UoS)
- 3 Stichting Deltares (DEL)
- 4 Swiss Federal Institute of Aquatic Science and Technology (EAWAG)
- 5 Institute for Underground Infrastructure (IKT)
- 6 INSA - Lyon (INSA)
- 7 Aalborg University (AaU)
- 8 Group of research, technical coordination and water information (GRAIE)
- 9 Euronovia (EURO)



Figure 2. List and map of Co-UDlabs partner institutions

3.3. WORK PACKAGE STRUCTURE

Work Package and the distribution of tasks and objectives in the Co-UDlabs project are defined with a fully interlinked design. The project as a whole is founded on three main types of activities: Networking Activity (NA); Transnational Access (TA); and Joint Research Activity (JRA). The activities developed within these categories are expected to provide a coordinated, mutually supporting environment that guarantees effective access to Co-UDlabs partners' research infrastructure and installations. Networking Activities are to be implemented with the work of five WPs: WP1 (Co-UDlabs' strategic development); WP2 (network service harmonisation); training activities (WP3); dissemination, exploitation and communication (WP4); and WP5 (provision of unified TA point). Trans-national Access will be implemented through WP9. WP6, WP7, and WP8 will work on Joint Research Activities. The interlinkages between work packages are described at a glance in Figure 3.

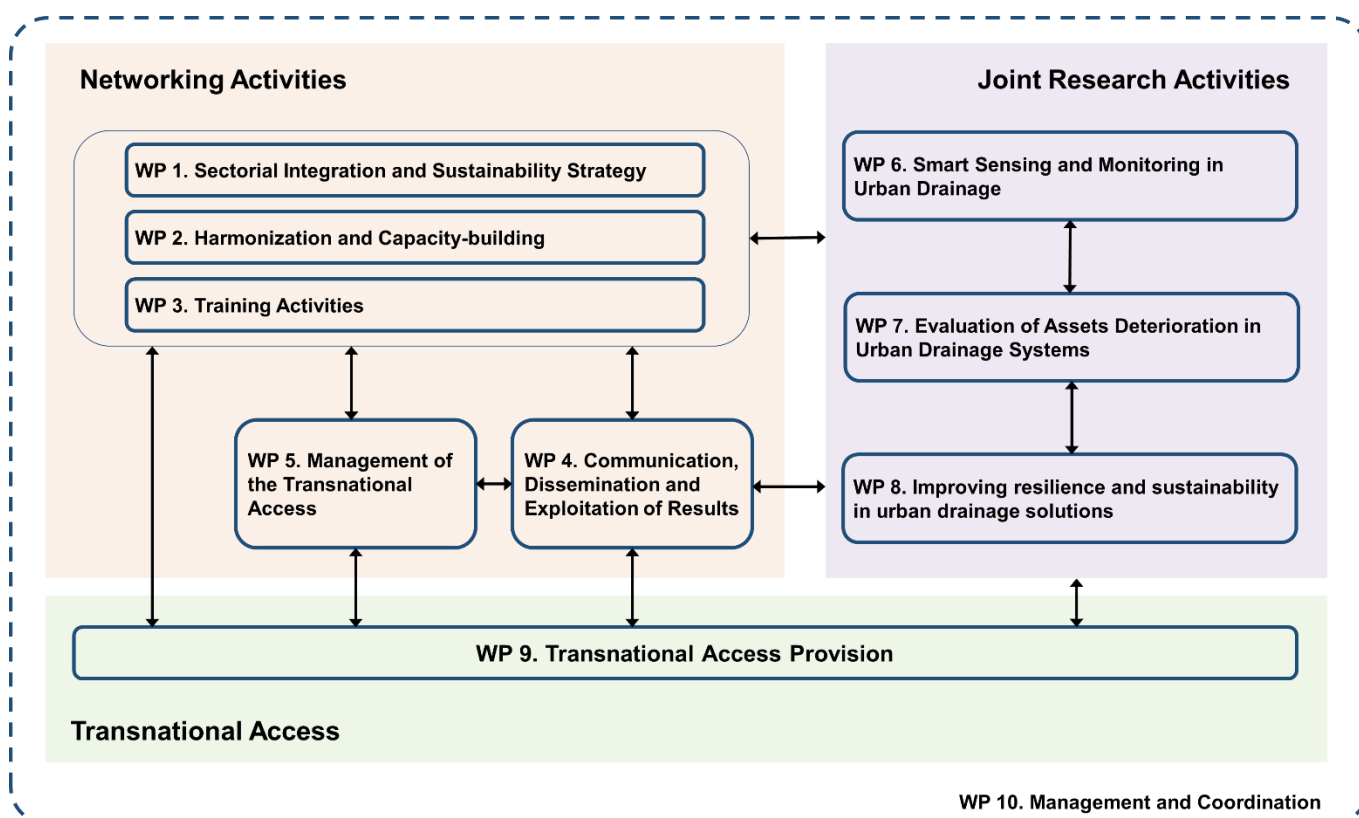


Figure 3. PERT chart of the CO-UDlabs work package structure

3.3.1. WP1: Sectorial Integration and Sustainability Strategy [NA1]

[Lead beneficiary: GRAIE. Person-months: 22.40. Duration: M1-M48]

WP1 will develop knowledge and working methods to support the long-term sustainability and impact of Co-UDlabs within the European UDS community. The WP activities include the mapping of existing RIs and UDS potential users and community needs. The WP also aims to foster consensus on how to use common research infrastructure and develop practices to enhance the implementation of relevant EU environmental, economic, and societal policies. WP1 will interact with all other WPs to ensure effective knowledge feedback from the different NA, TA and JRA activities into all WP1 deliverables. The WP will deliver on the following tasks:

- **Task 1.1:** Mapping of RI users and community needs to transition to more sustainable and smart urban drainage systems

- **Task 1.2:** Development of a roadmap to identify the role of RI to transition to more sustainable and smart urban drainage systems
- **Task 1.3:** Co-UDlabs Strategy for RI Sustainability and Community Development.

3.3.2. WP2: Harmonization and Capacity-building [NA2]

[Lead beneficiary: EAWAG. Person-months: 31. Duration: M1-M48]

WP2 aims to standardize experimentation in and operation of the project's research infrastructures and ensure consistent high-quality data collection via the use of agreed validation protocols. It is also expected to organize an effective data management system for the data collected during the project. This system will include management, preservation, and provision of access to collected data and metadata, as well as the incorporation of new standards and data protocols developed in the JRA actions. The WP is also designed to foster the exchange of best practices and know-how among project staff and participants working in the RIs and eliminate bottlenecks in the WP delivery process. The WP aims to improve the data-supported assessment of regulatory compliance of a range of urban drainage systems, by identifying institutional and individual-based challenges for water utilities and stakeholders and providing capacity-building resources for better data literacy of the next generation of urban drainage workforce. The WP will deliver on the following tasks:

- **Task 2.1:** Ensuring interoperability through the definition of common standards, protocols, and methods
- **Task 2.2:** Development and mobility of personnel and staff
- **Task 2.3:** Smart governance and public access to data.

3.3.3. WP3: Training activities [NA3]

[Lead beneficiary: Deltares. Person-months: 24.75. Duration: M1-M48]

WP3 aims to support and improve the exchange of knowledge and the development of new skills across all project partners as well as the research and practitioners communities. It also aims to help identify potential users of the Co-UDlabs Research Infrastructure, thus improving its accessibility and the effectiveness of the activities and research conducted in it. Through its training activities, WP3 is expected to create a pool of highly-qualified professionals, not only in the target research communities, but also with a relevant impact on the industry and the community of early-stage researchers. The WP will deliver on the following tasks:

- **Task 3.1:** Organisation of early-stage researcher activities and training activities on urban drainage
- **Task 3.2:** Training activities for urban drainage industry professionals and practitioners
- **Task 3.3:** Public webinars and related education activities.

3.3.4. WP4: Communication, Dissemination and Exploitation of Results [NA4]

[Lead beneficiary: Euronovia. Person-months: 26.65. Duration: M1-M48]

WP4 aims to contribute to the establishment of an effective, Europe-wide network for urban drainage practice and research, with the involvement and support of the UDS research and professional communities. It also aims to identify potential innovations and channels to support and enhance the project's results, in order to maximise the project's outreach to the largest possible audience of stakeholder, while also preserving the results' intellectual property.

WP4 will work on the dissemination of project’s knowledge and outcomes to all relevant stakeholders – e.g., potential RI users, the UD community at large, potential recipients of cross-sector and more hybrid innovation and knowledge transfers. It aims to do so via a structured programme of dissemination activities designed to promote engagement and knowledge exchange. These tasks will also aim at non-academic stakeholders (such as operators, utilities, regulators, etc.) to maximise the transferability and applicability of the project’s output.

WP4 will also develop a communication strategy aiming to maximise the project’s visibility with society at large, raising awareness on Co-UDlabs’ objectives and their impact and relevance even beyond a specific scientific community. WP4 is also expected to engage actively with other relevant EU projects in the same field to increase coordination, synergies, and opportunities for joint work and collaboration – thus widening even more the scope of dissemination activities and their impact. WP4 will, more specifically, work on the following tasks:

- **Task 4.1:** Devise the project’s communication and dissemination plans
- **Task 4.2:** Identify dissemination activities required to actively engage the stakeholder community of reference of Co-UDlabs
- **Task 4.3:** Devise an exploitation plan for the project’s results
- **Task 4.4:** Define and implement the necessary communication activities for the consortium (e.g., communication materials, website and online media, newsletter, communication elements in events and other activities, etc.)
- **Task 4.5:** Data management plan.

3.3.5. WP5: Management of Trans-National Access [NA5]

[Lead beneficiary: UDC. Person-months: 23.60. Duration: M1-M48]

WP5 carries out the fundamental task of organising, setting up, and ensuring the viability of the mechanism of trans-national access to the project’s Research Infrastructure. WP5 is tasked with defining a single entry-point for all external users interested in accessing the RI and the partners’ facilities and installations. This includes defining the calls for proposals, the definition of adequate engagement activities to ensure that multi-sectorial and diverse facility user groups are formed and incentivised to access the RI. WP5 will also be in charge of the evaluation and selection process for TA proposals and the definition of effective rules and purposes for the research stays and activities of all involved users. WP5 specific tasks are as follows:

- **Task 5.1:** Launch of the TA calls and outreach to a basin of potential users and participants
- **Task 5.2:** Review of TA proposals and selection process
- **Task 5.3:** Organisation of the actual TA implementation and deployment.

3.3.6. WP6: Smart Sensing and Monitoring in Urban Drainage [JRA1]

[Lead beneficiary: INSA. Person-months: 61.80. Duration: M1-M41]

The aim of WP6 is to catalyse a paradigm shift in UDS management, fostering a transition from current inefficient approaches towards a more digitised, informed, shared, and evidence-based decision-making process based on truly smart monitoring. WP6 also aims to identify and evaluate new sensors and technologies for hydrological and hydraulic variables, pollutant load monitoring and UD underground asset inspection. The WP will define and evaluate new methods and tools to improve the evidence ground for reliable and validated urban drainage monitoring data. Finally, it will define and evaluate new methods to analyse and interpret urban drainage space and distributed data.

- **Task 6.1:** Evaluation of sensor and new data sources for hydraulics, pollutant load monitoring and asset inspection
- **Task 6.2:** Smart methods and tools to improve the evidence base for reliable and validated monitoring data
- **Task 6.3:** Space distributed monitoring and data interpretation.

3.3.7. WP7: Evaluation of Assets Deterioration in Urban Drainage Systems [JRA2]

[Lead beneficiary: USFD. Person-months: 30.90. Duration: M1-M44]

WP7 will explore current national in-pipe defect identification protocols and the uncertainty associated with defect identification and characterization, upon the premise that knowledge on individual pipe defects can be used to estimate (and map) pipe condition onto system performance. The WP also aims to recommend and advance new common frameworks that use reliable knowledge of pipe condition to make adequate and sustainable decisions on renewal, renovation, and repair. Finally, WP7 is expected to identify current needs in technology development for in-pipe inspection and defect deterioration processes, which in turn may lead to more robust renewal, rehabilitation, and repair initiatives at the European level.

- **Task 7.1:** Improvement of current in-pipe inspection methods for better and more consistent defect data
- **Task 7.2:** Development of defect failure scenarios
- **Task 7.3:** Application of proposed defect deterioration models to real system.

3.3.8. WP8: Improving resilience and sustainability in urban drainage solutions [JRA3]

[Lead beneficiary: UDC. Person-months: 63.20. Duration: M1-M44]

The purpose of WP8 is to establish a consensus on the methodologies required to develop high-resolution data for the assessment of UD technologies' performance. It aims to show evaluation methods for urban flood resilience and pollution transport and retention properties. It also aims to advance a methodology to evaluate the sustainability of new and emerging UD technologies. WP8 addresses the following tasks:

- **Task 8.1:** Development of a consensus on the measurement of hydraulic and water quality performance of urban drainage technologies
- **Task 8.2:** Quantifying the resilience of urban drainage infrastructure
- **Task 8.3:** Improving the sustainability of urban drainage infrastructure.

3.3.9. WP9: Trans-National Access Provision

[Lead beneficiary: UDC. Person-months: 169.20. Duration: M1-M48]

The key objective of WP9 is to provide coordinated transnational access to researchers or research teams from academy, industry, and other urban drainage stakeholders to the advanced Urban Drainage facilities managed by the Co-UDlabs partners and their institutions. The TA offered by Co-UDlabs is free – thus removing one historically relevant barrier for many groups of potential users to access the unique research infrastructure offered by the consortium. A well-implemented TA with a broad base of potential users is a key feature for the establishment of new synergies and collaboration frameworks between Co-UDlabs partners and the larger urban drainage community, fostering the development of a pan-European mechanism of knowledge transfer in this field. WP9 will undertake the following tasks:

- **Task 9.1:** Definition of the TA rules, description of available facilities, and launch of two TA calls
- **Task 9.2:** Revision and selection of proposals for TA
- **Task 9.3:** Implementation of the TA provisions

3.3.10. WP10: Management and Co-ordination

[Lead beneficiary: UDC. Person-months: 34.00. Duration: M1-M48]

WP10 is the main work package for the day-to-day and overall management and coordination of the project. It should assist in monitoring progress in project implementation; provide financial and administrative management assistance to the consortium as a whole; and ensure an effective collaboration and information exchange between the partners. WP10 also establishes the Management and Support Team (MST) within the Project Coordinator as the sole contact point with the European Commission (EC) and the interface with external stakeholders and the public at large. WP10 will also oversee compliance with the obligations and responsibilities included in the project's Grant Agreement, including revision of project outcomes, relevant gender issues, and the identification and mitigation of project risks. WP10 includes the following tasks:

- **Task 10.1:** Technical and administrative coordination
- **Task 10.2:** Organisation of all consortium meetings and interactions
- **Task 10.3:** Reporting activities
- **Task 10.4:** Financial administration activities and support

3.3.11. WP11: Ethics Requirements

[Lead beneficiary: UDC. Person-months: N/A. Duration: M1-M48]

This work package sets out the 'ethics requirements' that the project must comply with. It is not endowed with person months and has no specific tasks. It will produce a report on Protection of Personal Data ('POPD') and Ethics Panel Questions ('EPQ').

4. INTERNAL COMMUNICATION AND WORKFLOW

This section provides details on both the practical and the technical environments through which communication, exchange, and collaboration within the Co-UDlabs project will be carried out. It is designed to provide information on both the internal mechanism of communication (platforms and resources available for internal exchange of information and data among project partners) and the external projection of the consortium, most relevantly through the project's website and its presence and activities on social media.

4.1. THE SHAREPOINT PLATFORM OF CO-UDLABS

Core documents, information and data managed by Co-UDlabs will be available at all times for all partners of the consortium in the project's Microsoft SharePoint platform. All members of partner institutions involved in the project are granted access to the SharePoint with at least enough user privileges to be able to access documents, event calendars, and relevant management information (e.g., list of contacts, minutes of meetings, etc.).

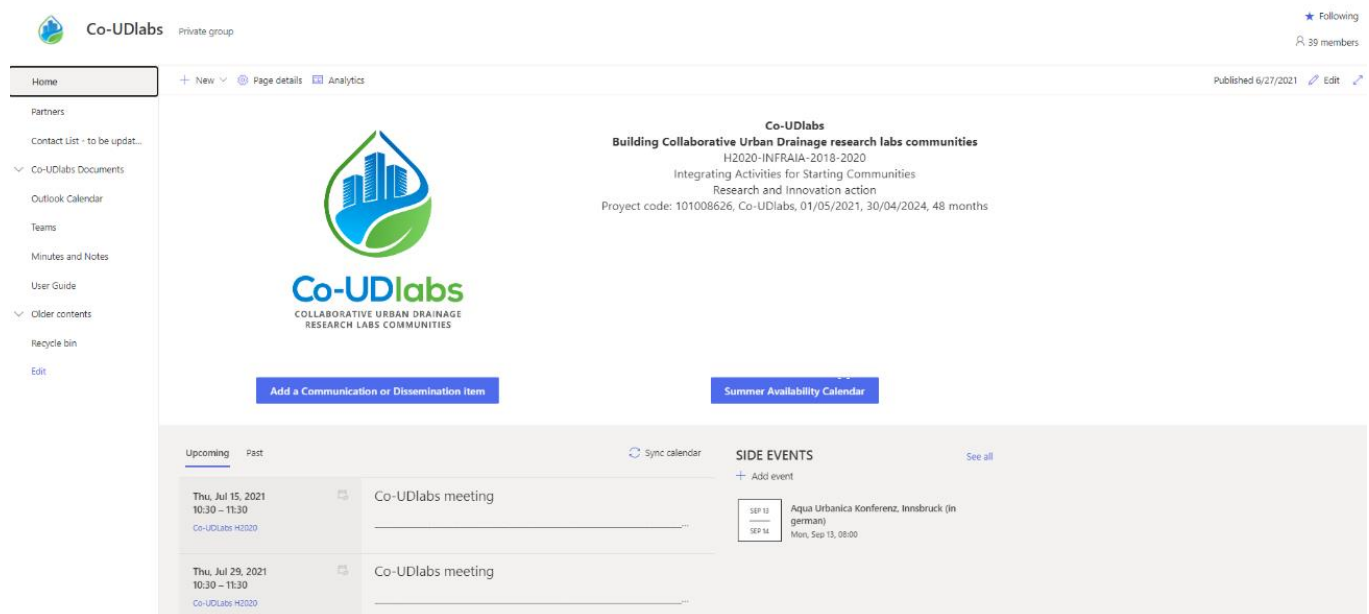


Figure 4: Screenshot of the SharePoint's main page

The SharePoint is structured to have several key resources available in one click:

- The official list of **consortium partners**;
- An updated **contact list** with information on all the team members involved in Co-UDlabs;
- Direct access to the **SharePoint's documents**, which in turn are organised as follows:
 - **Reference Documents**, with all the main documents of the project, including the Grant Agreement, the Consortium Agreement and the financial documentation (see also Section 2 above);
 - Folders for each **Work Package**, which teams can use as their day-to-day work space in the development of their respective deliverables and tasks;
 - **Deliverable and Milestones**, which will be arranged with one folder per Deliverable. While internal review and amendment of Deliverables will have to be performed in each Work Package folder, the Deliverables

folders are meant to be used to **store the final, revised Word document of a Deliverable and the approved PDF version**, ready for upload to the SyGMa platform of the European Commission;

- **Meetings**, where all the logistical and technical information (including minutes) of Co-UDlabs meetings will be stored.
- A **shared group calendar** to facilitate synchronisation and co-ordination as regards meetings, deadlines, and other relevant events (including conferences and other dissemination events);
- A link to the **Microsoft Teams group** of the project (see also Section 4.3);
- A direct link to the **online minutes and notes** of informal or internal reporting meetings;
- A **User Guide** of the Co-UDlabs SharePoint platform, based on the information provided in this Handbook.

All members of the SharePoint group will be able to access the shared documents at all times. All members should **always consider that changes applied to shared documents** (editing, renaming, moving, copying, or deleting) **will be immediately synchronised with the SharePoint contents**: shared documents should be managed and handled with caution.

The ‘Sync’ option in the SharePoint document management page (see Figure 5) will allow the user to automatically synchronise a specific folder with their own computer. This option **requires Microsoft OneDrive to be installed** on the user’s device and a OneDrive session to be correctly initiated with the same credentials used to access the SharePoint. Following the synchronisation of the folders, all changes applied from the user’s device **will automatically synchronise with the SharePoint**. Caution is recommended when using synchronised files.

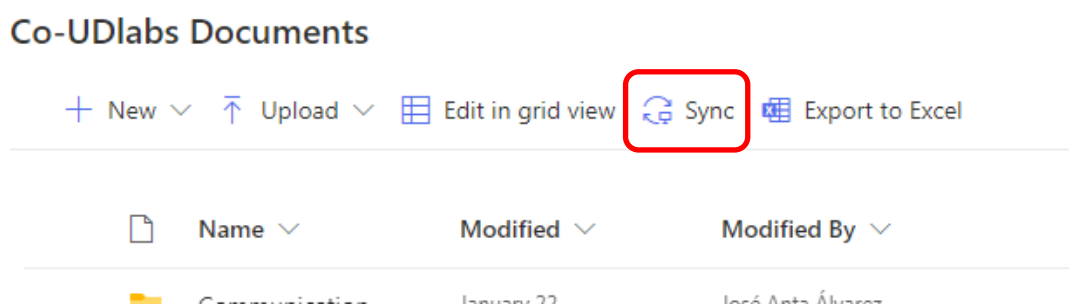


Figure 5. ‘Sync’ option in the share documents visualisation on SharePoint

The Co-UDlabs SharePoint platform will also provide access to **a team calendar**, so that events involving partners can be easily shared with the rest of the consortium.

The SharePoint homepage will also provide easy access to specific resources via **direct links and buttons** (e.g., team availability calendars, the databases of communication and dissemination activities and the stakeholder directory, etc.).

SharePoint also facilitates communication with the consortium as a whole. Any **e-mail sent to the group’s address** (co-udlabsh2020@nube.udc.es) **will automatically reach all members** of the SharePoint group.

The SharePoint is hosted within the Microsoft Office 365 environment provided by the University of A Coruña. **All data managed within the SharePoint platform complies with the data protection, storage, and management protocols of UDC**. The platform is fully available in the Microsoft 365 cloud service and is not dependent on a specific physical ICT infrastructure.

4.2. MEETINGS

The Consortium Agreement provides information on the **required meeting schedule** of the project’s decision-making bodies (see also details in Section 3 above). The **General Assembly** of Co-UDlabs will meet at least once a year. The **Steering Committee** will meet at least every three months. The Consortium Agreement also sets out the procedures for additional or extraordinary meeting requests by the members of the project.

Table 3. Tentative calendar of Co-UDlabs main governance bodies’ meetings

(Tentative) Date	Project Month	Meeting	Host
25/05/2021	M1	Co-UDlabs Kick-Off Meeting	Virtual
09/09/2021	M5	Steering Committee meeting	Virtual
09/12/2021	M8	Steering Committee meeting	TBD
10/03/2022	M11	Steering Committee meeting	TBD
05/2022	M13	Co-UDlabs General Assembly and Steering Committee meeting	TBD
08/09/2022	M17	Steering Committee meeting	TBD
08/12/2022	M20	Steering Committee meeting	TBD
09/03/2023	M23	Steering Committee meeting	TBD
05/2023	M25	Co-UDlabs General Assembly and Steering Committee meeting	TBD
07/09/2023	M29	Steering Committee meeting	TBD
07/12/2023	M32	Steering Committee meeting	TBD
07/03/2024	M35	Steering Committee meeting	TBD
05/2024	M37	Co-UDlabs General Assembly and Steering Committee meeting	TBD
05/09/2024	M41	Steering Committee meeting	TBD
05/12/2024	M44	Steering Committee meeting	TBD
06/03/2025	M47	Steering Committee meeting	TBD
04/2025	M48	Final General Assembly and Steering Committee meetings	TBD

Note: TBD: To be determined

Besides the organisation of the scheduled meetings of the consortium bodies, Co-UDlabs partners are **invited to meet as frequently as it is needed** for the adequate implementation of the project. More informal or thematic bi-weekly meetings are generally scheduled on Thursdays. Partners can request via e-mail or other accessible means on the project’s platforms to **dedicate specific meetings to specific topics** or issues. Informal meetings are also essential for the process of continuous reporting, both internally and with the European Commission (see also Section 6 below), as they allow partners to exchange information and share constant updates on the implementation status of tasks, Work Packages, and the project as a whole.

4.2.1. Minutes

Each meeting’s chairperson is also in charge of notetaking and the circulation, whenever necessary, of meetings’ minutes. UDC as Project Coordinator is by the default the chair institution of all meetings. Other partners can freely take on this responsibility if they request so for specific meetings. Minutes should be circulated to all meeting attendees for review and comment. Minutes will also be the official record for any decisions taken during the session.

Approved minutes will be available through the SharePoint platform of Co-UDlabs. A template document for meeting minutes will be available in the SharePoint platform of the project.

4.2.2. Participation of the European Commission Project Advisor

It is customary to invite the Project Advisor (European Commission’s liaison with the project) to the project’s key meetings (e.g., General Assembly) and core events.

4.3. THE CO-UDLABS MICROSOFT TEAMS GROUP AND PLATFORM

Especially for informal meetings that do not require the organisation of face-to-face events, Co-UDlabs has set up a **Microsoft Teams group** within the Microsoft Office 365 environment, which provides a platform for all **virtual activities and meetings** required for the consortium’s tasks and commitments.

Unfortunately, due to technical limitations imposed by the institution-based environment of Office 365, **a group’s guests** (i.e., users with an e-mail address from an institution or service which is not subscribed to Office 365) **will not be able to perform a series of tasks** or access several features of the platform.

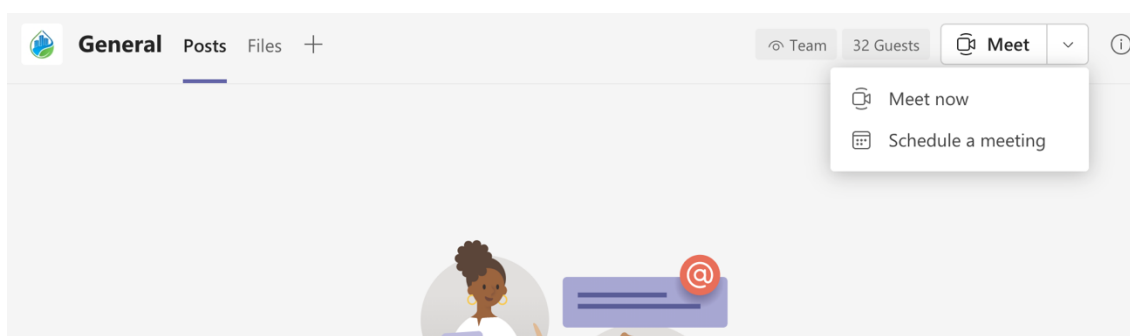


Figure 6. Screenshot of the Teams platform for meeting scheduling

Office 365 identified users can **schedule a meeting** (an invitation will be issued immediately to all the members of the group) on any date. Any scheduled meeting will also be visible and accessible on the group’s Teams calendar. Should any guest user meet any difficulties in the organisation of a meeting, they can refer immediately to the MST, which will help and ensure that information on the meeting can reach all people involved.

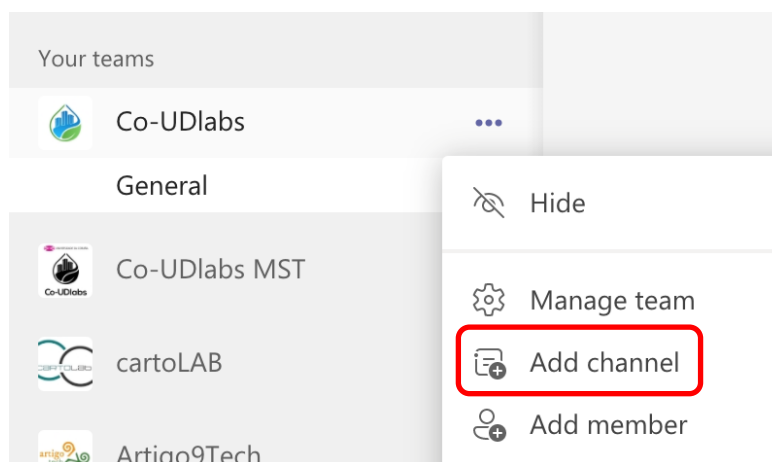


Figure 7. Creating task-specific channels within the main Teams group

Upon request, the group administrators (for Co-UDlabs, UDC as project coordinator) can **create specific task or WP-related channels** within the main Co-UDlabs groups, including only specific members to undertake specific tasks that do not involve or require the participation of the consortium as a whole. Channels can initiate meetings but not schedule them, but any meeting scheduled via Team’s Calendar can then be ‘located’ in a specific channel.

The Co-UDlabs Teams group can also work as a repository for shared files. Since this archive would be unrelated to the SharePoint’s, the project Management and Support Team warmly invites all users **to avoid using Teams to share project-wide files** and refer to the SharePoint for this purpose. Files can also be shared during meetings via each meeting’s chat. Files shared this way will **always be available in the Files tag of each individual meeting** (which can be accessed at any time even after the meeting has ended).

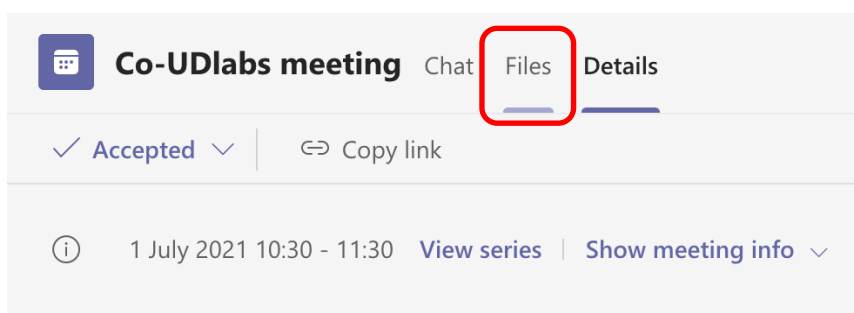


Figure 8. How to access files shared in an upcoming or past event’s chat in Microsoft Teams

Whenever Teams meetings are recorded (with previous explicit consent of all participants), **a copy of the recording is immediately made available within the Office 365 environment through the Co-UDlabs Microsoft Stream account**. Unless selected otherwise, all contents of the Stream account are fully private and only accessible to the group’s member.

4.4. THE CO-UDLABS WEBSITE

The development of a Co-UDlabs website is a substantial task of WP4 on the dissemination and communication of the project’s objectives and outputs. The website will work as a hub of information about the activities of Co-UDlabs as well as the features of the Research Infrastructure, the definition of the TA, and the project’s outcomes in terms of implementation, publications, and impact. The website will be hosted at the following link: <https://www.co-udlabs.eu>.

The Consortium will assist in communicating and advertising the weblink and the page as a source of information and data and a privileged channel for the establishment of synergies and opportunities with the UD community at large.

4.5. E-MAIL AND OTHER COMMUNICATION CHANNELS

Besides the project’s SharePoint and Teams platforms, Co-UDlabs partners are of course invited to engage in dialogue and communication through other means.

The SharePoint contains an updated list of all e-mail contacts of all the personnel involved in the project. This list should be considered as the one valid repository of personal contact information and treated with adequate caution to preserve the privacy of all people involved. E-mail is a legitimate means of formal communication among the project’s partners – e.g., an e-mail is considered valid in-writing communication for formal requests such as extraordinary meetings of consortium bodies or the issuing of official project-related documents.

It is required that UDC as Project Coordinator be the sole institution in contact with the European Commission. All communication between any parties of the consortium and the European Commission should be mediated by UDC and the Management Support Team.

It is appreciated that all formal project communication be exchanged copying the Management Support Team (jose.anta@udc.es; a.ciambra@udc.es) among the recipients.

It is advised that e-mail not be used as a means of engagement in complex or lengthy interactions, to avoid overloading mailboxes and diluting potentially sensitive or relevant information. Partners should consider the opportunity of scheduling virtual or in-presence meetings to avoid such overload.

4.6. SOCIAL MEDIA

Social media have developed into a crucial asset for a project's visibility and ability to extend its outreach and expand its community of reference and potential users. As part of WP4, Co-UDlabs will develop several channels of communication and activities on social media, most importantly a Twitter account (<https://twitter.com/coudlabs>) a LinkedIn page (<https://www.linkedin.com/company/co-udlabs-project>). In addition, in the framework of WP3, a YouTube account will be created. While the partners in charge of WP4 will be managing the project's social media ecosystem, all partners are expected to contribute contents and updates, as well as supporting diffusion and visibility.

It is expected that Co-UDlabs members collaborate to social media outreach by sharing contents and coordinating with WP4 on the most effective strategies and initiatives to fulfil the project potential in terms of visibility in the UD community, the establishment of new alliances with potential partners, and the diffusion of each partner's implementation progress and dissemination output.

5. RESPONSIBILITIES AND DUTIES

5.1. DUTIES, COMMITMENTS, AND PERFORMANCE OBLIGATIONS

According to the conditions laid out in the Grant Agreement, **all Co-UDlabs partners share general obligations required for the full and successful execution of the project.** The main reference for these duties is Chapter 4 of the Grant Agreement.

5.1.1. Obligation to implement the project's action (Article 7 GA)

In accordance with the Grant Agreement, all partners of Co-UDlabs share a general obligation to **properly implement the actions** to which they have committed as described in Annex 1 of the Agreement and in compliance of all the provisions included in the reference documents and the legal obligations of applicable EU, international, and national law.

Chapter 4, Section 1 of the Grant Agreement defines in detail the conditions of access and use of the resources required to perform the project's planned action. It is important that these references are consulted and followed with maximum care in any case involving performance of **duties by third parties**. It is important that conditions on the **purchase of good, works, or services** are followed as strictly as possible.

5.1.2. Obligation to inform (Article 17 GA)

Partners are subject to a general **obligation to provide at any time all requested information** in order to verify the **eligibility of costs, the implementation of planned action, and compliance with any obligations** accepted under the Grant Agreement.

Likewise, partners are obliged to **keep and preserve records** of all supporting documentation about costs, implementation, and other obligations for a period of five (5) years following the payment of the balance. Record-keeping must be by means of original documents (digitalised document will be considered valid only if they are under national law).

The **submission of Deliverables** (see Section 6.1) and **periodic and final reports** (see Section 6.3) is part of the general obligation to inform.

5.1.3. Obligation to disseminate results

During the Project and for a period of one year after the end of the Project, the dissemination of own results by one or several Parties – including but not restricted to publications and presentations – will be governed by Article 29.1 of the Grant Agreement.

Prior notice of any planned publication shall be given to the other Parties at least 45 calendar days before the publication. Any objection to the planned publication shall be made in accordance with the Grant Agreement – in writing to the Coordinator and to the Party or Parties proposing the dissemination – within 30 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.

An objection is justified if:

- a) the protection of the objecting Party's Results or Background would be adversely affected;
- b) the objecting Party's legitimate interests in relation to the Results or Background would be significantly harmed.

The objection must include a precise request for necessary modifications. If an objection has been raised, the involved Parties shall discuss how to overcome the justified grounds for the objection on a timely basis (for example by amendment to the planned publication and/or by protecting information before publication) and the objecting Party shall not unreasonably continue the opposition if appropriate measures are taken following the discussion.

The objecting Party can request a publication delay of not more than 90 calendar days from the time it raises such an objection. After 90 calendar days the publication is permitted.

A Party shall not include in any dissemination activity another Party's Results or Background without obtaining the owning Party's prior written approval unless they are already published.

5.1.4. Additional obligations and performance duties

Articles 25 to 40 of the Grant Agreement collect additional duties and obligations for project partners. These include:

- An **obligation to identify data, know-how, or information** that was held by any beneficiary prior to the signing of the Grant Agreement and is necessary for the implementation of the project (i.e., '**Background**') and determine the conditions for all project partners, affiliated entities, and third parties to access the background if needed to perform any project tasks;
- The **conditions of ownership and joint ownership of results**;
- The **obligation to protect, exploit, and disseminate the results** (see also Section 5.1.3 above) and ensure open access to scientific publications engendered by the results of the project;
- The obligation to provide **full open access** to project data (opt-outs are possible);
- The obligation to provide **full notice of EU funding** (see also Section 6.1.2)
- The definition of **access rights to the results**;
- The **obligation to implement the European Charter** for Researchers and the **Code of Conduct** for the Recruitment of Researchers;
- The obligation to aim for **gender equality**;
- The obligation to comply with **ethical and research integrity principles**, avoid any **conflicts of interest**, and maintain **confidentiality**.

5.2. BUDGETS AND PAYMENTS

The European Union is funding project implementation via **Grant No. 1010085626** of the 'Integrating and opening existing national and regional research infrastructures of European interest' Programme, part of the Excellent Science priority of the **Horizon 2020 Framework Programme (H2020)**.

The **maximum grant amount** disburseable by the European Commission for the Co-UDlabs project is **EUR 4,999,568.50** (four million nine hundred and ninety-nine thousand five hundred and sixty-eight euros and fifty eurocents).

All funding is transferred to UDC as Project Coordinator on behalf of all project beneficiaries. The Project Coordinator is **responsible for the allocation of all funds to the rest of beneficiaries** in accordance with the Grant Agreement and the decisions agreed upon by the Consortium. The Project Coordinator is obliged to ensure that all funds are duly transferred with no unjustified delay.

UDC as Project Coordinator will receive the following transfers from the funding entity:

- One **prefinancing payment** (see Section 5.3);
- One or more **interim payments** according to requests for interim payments as submitted through periodic reports;
- One **payment of the balance**, according to the request submitted through the final report.

All necessary information on payment arrangements is available in Article 21 of the Grant Agreement.

5.3. PREFINANCING PAYMENT

The **prefinancing payment** is designed to provide project partners with **initial support for the beginning of the project implementation activities** and the arrangement of the workplan and distribution of tasks and activities. It is formally property of the European Union until the final payment of the grant's balance.

The amount of the **prefinancing payment** for the Co-UDlabs project is **EUR 2,666,436.53** (two million six hundred and sixty-six thousand four hundred and thirty-six euros and fifty-three eurocents).

An amount corresponding to **5% of the maximum grant amount** (i.e., **EUR 249,978.43**) is **retained** from the prefinancing payment by the European Commission and **transferred into a 'Guarantee Fund'**. The fund serves as a recovery or insurance fund in case of financial liability within the consortium. **The Guarantee Fund is returned in full to the beneficiaries through the final payment of the balance** (if this amount is positive). For more details on the administration of payments, partners can consult Article 21 of the Grant Agreement.

6. REPORTING AND OUTPUT PROCESSING

For the effective implementation of the project and seamless communication among project partners, Work Package leaders and members, and the coordination teams, it is essential that the framework, mechanisms, and tools for adequate and continuous reporting on and monitoring of progress is openly and clearly defined.

This section identifies the main expected output of the project (Deliverables and Milestones) and defines the main processes of reporting both within the Consortium (formal and informal internal reporting) and with external stakeholders and, in particular, the European Commission (continuous, periodic and final reporting).

6.1. DELIVERABLES AND MILESTONES

Co-UDlabs' Grant Agreement identifies 40 Deliverables and 26 Milestones to be fulfilled and achieved by the project's members within their Work Packages.

Table 4. List of Co-UDlabs Deliverables

No.	Deliverable Title	WP	Lead Beneficiary	Due (M)	Dissemination Level
D1.1	Identification of RI users and UDS community needs	WP1	GRAIE	15	Public
D1.2	Roadmap of RI required to support effective UDS transition at EU level	WP1	GRAIE	42	Public
D1.3	A report on the strategy for delivery of the long- term sustainability of Co-UDlabs	WP1	UDC	48	Public
D2.1	Intermediate report on a framework for harmonization of Co-UDlabs sensors, technologies and data procedures.	WP2	EAWAG	24	Public
D2.2	Final report on a framework for harmonization of Co-UDlabs sensors, technologies and data procedures	WP2	EAWAG	44	Public
D2.3	Intermediate report on staff development	WP2	EURO	24	Public
D2.4	Final report on staff development	WP2	EURO	48	Public
D2.5	Report on smart governance and public access to data	WP2	EAWAG	41	Public
D3.1	1st Report on training and education activities	WP3	EURO	17	Public
D3.2	2nd Report on training and education activities	WP3	EURO	34	Public
D3.3	3rd Report on training and education activities	WP3	EURO	44	Public
D4.1	Data Management Plan	WP4	EURO	6	Public
D4.2	Plan for exploitation and dissemination of the project results	WP4	EURO	6	Public
D4.3	Mid-term report on dissemination and communication activities, including KPIs reports	WP4	EURO	24	Public
D4.4	Final report on the project exploitation initiatives and related impacts on innovation, including dissemination and communication activities	WP4	EURO	48	Public
D5.1	Manual with the TA call rules and procedures and the description of the facilities	WP5	UDC	6	Public
D5.2	Report on evaluation procedure 1 st call	WP5	UDC	18	Public
D5.3	Report on evaluation procedure 2 nd call	WP5	UDC	33	Public
D6.1	Report on review and selection of 6 new/ emerging monitoring technologies to be tested in T6.1.2	WP6	EAWAG	12	Public
D6.2	Report/proof of concept on emerging/new sensors/data sources of interest corresponding to the 6 technologies selected in T6.1.1 and evaluated in T6.1.2, with executive summaries for practitioners	WP6	EAWAG	36	Public

D6.3	User toolbox package for i) sensor calibration, ii) data validation and iii) uncertainty assessment	WP6	INSA	24	Public
D6.4	Report on space distributed monitoring and data interpretation	WP6	USFD	41	Public
D7.1	Report on testing methodology identify in-pipe defects	WP7	USFD	18	Public
D7.2	Report on assessment of current pipe condition assessment and a proposed common EU approach, supporting data in open access repository	WP7	USFD	24	Public
D7.3	Report on how to create common European in- pipe defect scenarios	WP7	USFD	24	Public
D7.4	Report on the development of mechanistic models able to simulate the temporal deterioration of drainage assets	WP7	IKT	36	Public
D7.5	Report on case studies from Task 7.3	WP7	USFD	44	Public
D8.1	Report on determined Scalable Hydrodynamic Performance Protocols of Task 8.1.1	WP8	UDC	24	Public
D8.2	Report on determined Scalable Measurement Protocols to Assess the Pollutant Retention and Release potentials of Urban Drainage Structures of Task 8.1.2	WP8	IKT	24	Public
D8.3	Report on the performance of Urban Drainage Systems under Pressure and their Recovery	WP8	USFD	36	Public
D8.4	Report on hydrodynamic design for stormwater detention ponds optimized for cost- efficient maintenance	WP8	AAU	30	Public
D8.5	Report on use of designer soils for Sustainable Urban Drainage Systems	WP8	INSA	44	Public
D9.1	1st report on TA provision	WP9	UDC	30	Public
D9.2	Final report on TA provision	WP9	UDC	48	Public
D10.1	1st periodic report	WP10	UDC	18	Public
D10.2	2nd periodic report	WP10	UDC	36	Public
D10.3	Final report	WP10	UDC	48	Public
D10.4	Project Management Handbook	WP10	UDC	3	Public
D11.1	POPD - Requirement No. 1	WP11	UDC	4	Confidential
D11.2	EPQ - Requirement No. 2	WP11	UDC	4	Confidential

According to the Grant Agreement, UDC as Project Coordinator is the sole responsible for the timely and effective submission of the project's Deliverables to the European Commission. The Project Coordinator will collect draft deliverables from the institutions in charge of their delivery, oversee that they are submitted according to the agreed scheduled, and review their compliance to the required quality standards for submission.

6.1.1. Official Co-UDlabs templates

It is essential that all Deliverables and all documents submitted to the European Commission are laid out using the project's official templates. All available templates will be accessible for all partners on the project's SharePoint. Templates include:

- Deliverable templates
- PowerPoint slideshow templates
- Meeting Agenda templates
- Meeting Minutes templates

- Poster presentation templates

The templates come with pre-set typography and styles. Please use the pre-established settings to guarantee the consistency of the project’s visual identity throughout the reporting process.

6.1.2. EU funding notice

Partners should always include the EU funding notice in every communication and dissemination item they produce. The funding notice is essential for these products to be considered in the reviewing process.

Any communication activity related to the action (including any electronic form, social media, etc.) and any infrastructure, equipment, and major results funded by the grant must:

- Display the **EU emblem** (when displayed with another logo, the EU logo must have appropriate prominence)
- 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, or**
 - **This [infrastructure, equipment, or other type of result] is part of a project that has received funding from the European Union’s Horizon 2020 research and innovation programme under Grant Agreement No. 101008626.**

6.2. INTERNAL REPORTING

UDC as Project Coordinator will be tasked with overseeing that Deliverables and Milestones are delivered and achieved in due time and complying with the required quality standards. In order to do so, it is essential that Co-UDlabs and the partners set up and maintain an effective mechanism of internal reporting, through which the Project Coordinator and the rest of the consortium can monitor the fulfilment of project’s tasks and the achievement of its objectives in accordance with the agreed timeline and workplan.

6.2.1. Formal internal reporting

Official periodic meetings of Consortium Bodies should be a preferred venue for internal reporting. Work Package Leaders should have the opportunity to **report on the status of work progress on their respective WPs and tasks**. Specific internal **reporting items** – exploring more in detail progress and outstanding issues for each WP – **will be added in the agendas of the Steering Committee meetings**.

As for the management, revision, and submission of project Deliverables, it is important that **draft Deliverables be submitted at least one month before the official deadline**, to allow the Project Coordinator and other relevant partners to revise and contribute to the output.

The Project Coordinator will always look to provide **revision feedback within one week after receiving a Deliverable draft**. WP members in charge of a Deliverable should **provide feedback and implement edits at least two weeks before the official deadline**.

The Project Coordinator, finally, will attempt to ensure that **revised and approved editable and PDF versions of a Deliverable** are available and ready **at least one week before the official deadline**. Figure 9 below shows a workflow diagram of the internal revision process with deadlines and procedures available at a glance.

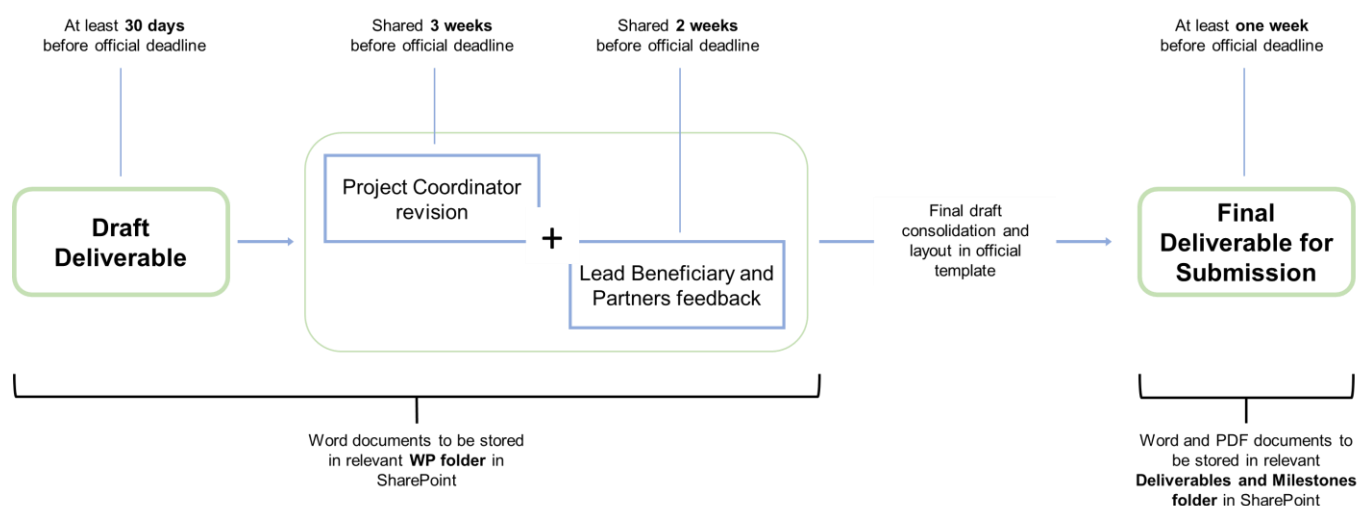


Figure 9. Workflow diagram for the internal process of Deliverable drafting, revision, and submission

Because of Co-UDlabs' specific arrangements for Deliverables and Milestones, there will be instances of **several Deliverables from different WPs due at the same time**. To guarantee seamless communication and compliance with the expected deadlines, it is essential that all partners cooperate to have Deliverables ready at the earliest possible opportunity.

6.2.2. Informal internal reporting

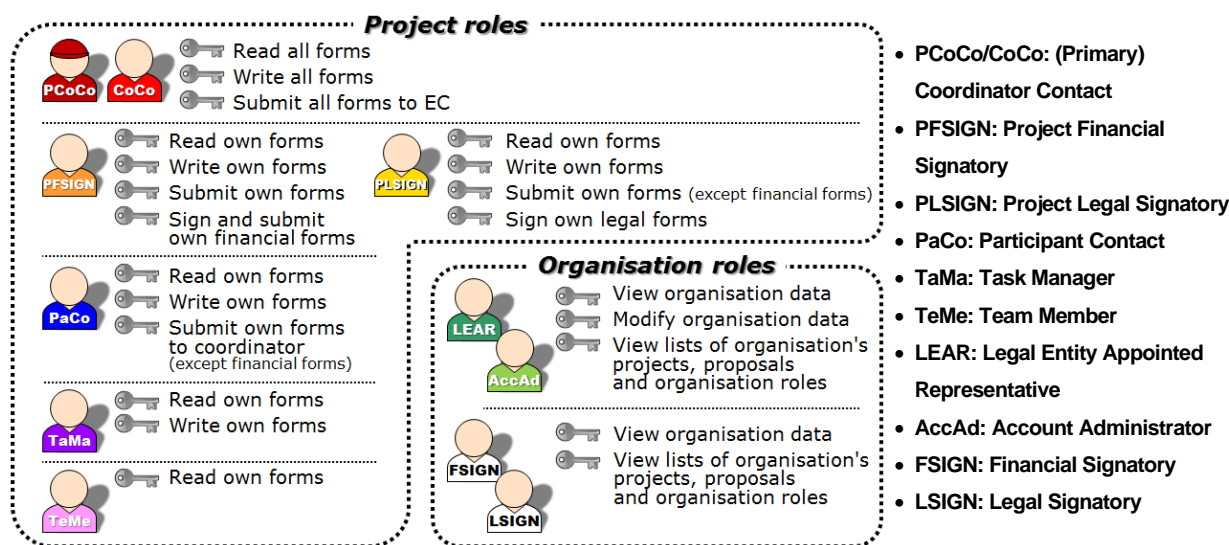
To keep track of the project's activities and development, partners should also establish an informal *modus operandi* for continuous internal reporting. Work Package Leaders in particular are invited to take advantage of the bi-weekly pre-scheduled Co-UDlabs meetings to provide updates on the status of their tasks. This is especially relevant with regard to two specific dimensions of reporting, i.e., deviations from plans and upcoming deadlines:

- All WP Leaders should **report as soon and thoroughly as possible on potential deviations from the expected workplan**. Any **difficulties**, unexpected **shortcomings**, and/or **newly identified risks** should be communicated to the Project Coordinator and, if possible, the rest of the partners at the earliest opportunity;
- As **deadlines for specific Deliverables or Milestones** approach, it is essential that WP Leaders **intensify the communication flow with the Project Coordinator** (which will oversee revising and streamlining the reporting documents before submission) and, if necessary, the rest of the Consortium, before and during the formal internal reporting process for the preparation and submission of Deliverables.

6.3. REPORTING TO THE EUROPEAN COMMISSION

Reporting to the European Commission will be performed through the Funding and Tenders website and the Participant Portal, the online platform that centralises the management of EU-funded projects and the reporting activities between the Commission and the partners of the projects. Various individuals in each Co-UDlabs partner institution have been granted access to the Participant Portal with one of several roles available. Specific roles allow to perform certain actions on the portal. A user-friendly guide to role attribution and powers in H2020 project management is available online in the European Commission's programme manual: https://ec.europa.eu/research/participants/docs/h2020-funding-guide/user-account-and-roles/roles-and-access-rights_en.htm.

Figure 10 below provides a quick overview of project roles and the access rights connected to their post.



Source: European Commission, <https://is.gd/InunED>.

Figure 10. Rights associated with project and organisation roles

Partner members with authorised access to the Participant Portal can easily access the information of the Co-UDlabs project in their account's main page. They can click on 'Projects' in the left-side panel and then 'Manage Project' after clicking on the 'Actions' button on the right side of each of their projects' tab (Figure 11). Accessing this area will lead to the Participant Portal proper, the shared ecosystem in which official reporting to the European Commission is ultimately performed.

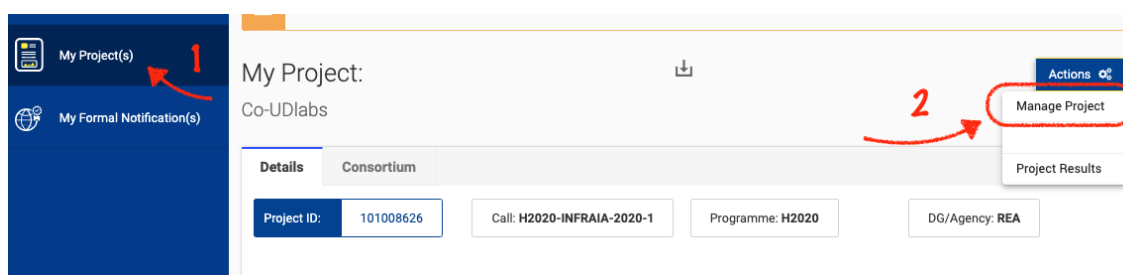


Figure 11. Accessing project management from a user's main page on the Participant Portal

Once inside the Participant Portal, users will see the basic information about the Co-UDlab project on the left panel, and a series of links and resources to:

- Contribute to the '**Continuous Reporting**' mechanism of the project;
- **Manage documents or communications** that have been initiated on the portal with regard to the project;
- Establish a **new interaction with the EU** as the funding entity. This item (in the upper-right corner of the central panel) is **particularly sensitive** because of the potential consequences of these initiatives and should be handled with **extreme care**. In general terms, **only the Project Coordinator should initiate any direct interaction with the European Commission**. Partners of the consortium should **refrain from using this last-resort option** and should rather **refer to the Project Coordinator for any inquiry about this kind of action**.

6.3.1. Continuous Reporting

Ordinary management of the project and step-by-step compliance with implementation goals and criteria (Deliverable and Milestones) are performed via the **Continuous Reporting mechanism of the H2020 portal**. Continuous Reporting is designed to entrust monitoring of the project’s goals to the consortium itself. By accessing Continuous Reporting, partners will be led to the **SyGMa** (System for Grant Management) platform (Figure 12).

The screenshot displays the SyGMa dashboard interface. At the top, there is a navigation bar with the following sections: Summary for Publication, Deliverables Ethics, DMP, Other Reports, Milestones, Critical Risks, Publications, Dissemination, Patents (PS), SWE Impact, Infrastruct..., Open Data, Gender, and ABS Regulation. Each section contains a status icon: a red 'X' for Summary for Publication, a blue 'i' for Deliverables, a blue 'i' for Milestones, a green checkmark for Critical Risks, a red 'X' for Publications, a green checkmark for Dissemination, a green checkmark for Patents, a yellow warning triangle for SWE Impact, a red 'X' for Infrastruct..., a blue 'i' for Open Data, a red 'X' for Gender, and a blue 'i' for ABS Regulation. A red box highlights this navigation bar, with a red arrow pointing to the 'Deliverables' icon. Below the navigation bar, there is a section titled 'Deliverables, Ethics, DMP, Other Reports' with a sub-header 'For each Deliverable, a single file (max 52MB) can be uploaded'. Below this, there is a table of deliverables with columns for WP No, Del Re, Del No, Title, Description, Lead, Nature, Dissem, Est. Del., Rev. Due, Receipt I, Approval D, Status, and Deliverables. The 'Status' column contains 'Pending' and a green arrow icon. A red box highlights the 'Status' column, with a red arrow pointing to the green arrow icon. The table contains 16 rows of deliverables, all with a status of 'Pending'.

WP No	Del Re	Del No	Title	Description	Lead	Nature	Dissem	Est. Del.	Rev. Due	Receipt I	Approval D	Status	Deliverables
WP1	D1.1	D1	Identification of RI u	Identification of RI users and UDS community needs	GR/	Repor	Public	31 Jul 2				Pending	
WP1	D1.2	D2	Roadmap of RI requi	Roadmap to identify the position of RI in the L...	GR/	Repor	Public	31 Oct :				Pending	
WP1	D1.3	D3	A report on the strat	The draft strategy for the long-term developmen...	UDC	Repor	Public	30 Apr :				Pending	
WP2	D2.1	D4	Intermediate report	Intermediate report on a framework for harmoniz...	EAV	Repor	Public	30 Apr :				Pending	
WP2	D2.2	D5	Final report on a frau	Final report on a framework for harmonization o...	EAV	Repor	Public	31 Dec :				Pending	
WP2	D2.3	D6	Intermediate report	Intermediate report on development and mobility...	Eur/	Repor	Public	30 Apr :				Pending	
WP2	D2.4	D7	Final report on staff	Final report on development and mobility of per...	Eur/	Repor	Public	30 Apr :				Pending	
WP2	D2.5	D8	Report on smart gov	Report on the available performance data and ma...	EAV	Repor	Public	30 Sep :				Pending	
WP3	D3.1	D9	1st Report on trainin	1st Report on training and education activities...	Eur/	Repor	Public	30 Sep :				Pending	
WP3	D3.2	D10	2nd Report on traini	2nd Report on training and education activities...	Eur/	Repor	Public	29 Feb :				Pending	
WP3	D3.3	D11	3rd Report on trainir	3rd Report on training and education activities...	Eur/	Repor	Public	31 Dec :				Pending	
WP4	D4.1	D12	Data Management Pl	The DMP will describe the data management life ...	Eur/	ORDP	Public	31 Oct :				Pending	
WP4	D4.2	D13	Plan for exploitation	Draft of the Plan for Exploitation and Dissemi...	Eur/	Repor	Public	31 Oct :				Pending	
WP4	D4.3	D14	Mid-term report on c	Mid-term report on dissemination and communicat...	Eur/	Repor	Public	30 Apr :				Pending	
WP4	D4.4	D15	Final report on the p	Final report on the project exploitation initia...	Eur/	Repor	Public	30 Apr :				Pending	

Figure 12. Dashboard of the System for Grant Management (SyGMa)

The SyGMa dashboard includes **all the individual elements that are part of the Continuous Reporting process**, including Deliverables, Milestones, Critical Risks, information on dissemination, publications, and patents, as well as reporting on gender, open-data access, and tracking trans-national access and the use of the project’s research infrastructure (see step 1 in Figure 12). All sections have a ‘Save’ button in the upper-right corner to save progress and avoid the loss of data.

In the Deliverables section, more specifically, **the SyGMa portal tracks progress and status of all Deliverables** (‘Pending’, ‘Draft’, ‘Submitted’, etc.). When a Deliverable status is ‘Pending’, working documents can be uploaded to the system by clicking on the green arrow icon (see step 2 in Figure 12). While the Deliverable is in ‘Draft’ status, all uploaded documents can be **replaced, deleted, and edited**. Following **submission** of a Deliverable, either **replacing or editing a report will require a specific process** initiated by the Project Officer from within the European Commission.

Formal and informal internal reporting will be essential in this regard. It is highly recommended that work on, revision, and finalisation of Deliverable drafts be **performed internally** and that the management of contents on **the SyGMa platform remain centralised with the Management and Support Team at UDC** as Project Coordinator. Even following an upload of a draft Deliverable by a partner, **only the Project Coordinator will be able to submit a Deliverable officially and definitively to the European Commission for revision and approval**.

All the information collected through the Continuous Reporting will be **automatically integrated in the Periodic and Final Reports**. It is essential that all required information and data be available and correctly uploaded, validated, and submitted by the time the Periodic and Final Reports are submitted and the evaluation is performed.

6.3.2. Periodic Reporting

Periodic Reporting is one of the key components of project review by the European Commission. The reviewing process of Co-UDlabs is arranged into three reporting periods:

- **Reporting Period 1 (RP1):** month 1 to month 18 (18 months);
- **Reporting Period 2 (RP2):** month 19 to month 36 (18 months);
- **Reporting Period 3 (RP3):** month 37 to month 48 (12 months).

Periodic Reports must be submitted to the European Commission within 60 days since the end of each Reporting Period. UDC as Project Coordinator will coordinate and manage the preparation of the Periodic Reports and the contributions of each partner.

Each partner will have to contribute a **Financial Statement** and the **Technical Part of the Periodic Report**. Only persons within each partner institution granted specific roles (i.e., Participant Contacts; Project Financial Signatories; and Task Managers) will be able to access the Participant Portal to fill in the information required for the report.

For the **Financial Statement**: partner members can access the Participant Portal and access the Financial Statement section, filling in all the information required by the form. This information can be validated at all times to check whether the format and data has been inserted correctly. Partner members with 'Participant Contact' roles will be able to 'Lock for Review' the information that has been inserted. This operation will generate a PDF up for internal review. The Statement can be unlocked for further editing or signed electronically and sent to the Project Coordinator: only PFSIGN roles can perform this action.

Considering the amount of information required, the sensitivity of the data, and the relevance of this process for the successful implementation and execution of the project, **it is essential that all partners validate and submit their technical and financial reports to the Coordinator at least 30 days before the actual end of the Reporting Period**. UDC as Project Coordinator will be in charge of sharing the internal and external schedule, deadlines, and procedures. For the reporting to the Commission to be effective and time-efficient, it is essential that this process be supported at all stages by internal communication and reporting – especially to avoid deviations from the expected schedule and address potential outstanding issues with enough time to act.

UDC as Project Coordinator will oversee the production of the Periodic Report and share a final draft no later than 30 days after the end of the Reporting Period. The Steering Committee will have 15 days following the circulation of the draft to share comments, amendments, and integrations to the draft. UDC as Project Coordinator will submit the approved Periodic Report via the SyGMA platform.

6.3.3. Final Reporting

At the end of the project's lifespan in month 48 and in addition to the last Periodic Report, Co-UDlabs will also have to submit a Final Report no later than 60 days following the end of the last reporting period. The Final Report too will have two main components:

- A **Final Technical Report** designed for publication and containing:
 - An overview of the **project's results** and their exploitation and dissemination;
 - A set of **conclusions on the Action** performed by the project;
 - A description of the **socio-economic impact** of the Action.

- A **Final Financial Report**, which will include:
 - A **Final Summary Financial Statement**, which will be created automatically as the consolidation document of all individual financial statements for all Reporting Periods, alongside a request for the payment of the grant balance;
 - A **Certificate on the Financial Statements**, based on Annex 5 of the Grant Agreement, for each beneficiary of the project and – if available – each linked third party that requests EUR 325,000.00 or more as reimbursement of actual costs and unit costs calculated on the basis of its usual cost accounting practices.

As with the Periodic Reports, the Final Report too is ultimately **arranged, revised, and eventually submitted by the Project Coordinator** via the SyGMa portal.