



Co-UDlabs
COLLABORATIVE URBAN DRAINAGE
RESEARCH LABS COMMUNITIES

2nd Global Call for **Transnational Access**

Rules, eligibility conditions, and application process for
Co-UDlabs' call for Transnational Access (TA) to its research
infrastructure

Co-UDlabs (Building Collaborative Urban Drainage research lab communities)
is an INFRAIA-2-2020 project.



**Co-UDlabs receives funding from the European Union's Horizon 2020
research and innovation programme under Grant Agreement No. 101008626.**

Co-UDlabs' 2nd Call for Proposals

The overall aim of the Co-UDlabs H2020 European project is to integrate research and innovation activities in the field of urban drainage systems allowing the European stakeholders, academic researchers, and innovators in the urban water sector to enhance their activity through a common research network that can provide coherence and access to high-quality large-scale research facilities, thereby building a collaborative European Urban Drainage innovation community. In Co-UDlabs, 17 unique 'field-scale' urban drainage research facilities hosted by seven research organisations are included in the project's **Transnational Access (TA) programme**, aiming to offer the urban drainage innovation community high quality laboratory and field facilities, experimental and technical expertise and improved data sharing platforms. EU-funded access allows diverse groups to collaboratively work on key challenges of the urban water sector, and aids wider, faster, and more effective uptake of innovative solutions to address pressing public health, flood risks and environmental challenges.

This Second Call for Proposals is an invitation to all eligible user groups to submit a proposal for research projects to be carried out at Co-UDlabs' unique facilities, with financial support from Co-UDlabs (see below, 'Eligible costs'). Transnational Access will be provided to selected *user groups* (i.e., teams formed by different researchers and institutions that submit a proposal for a TA) led by a *user-group leader*.

TA facilities are based at four Universities – University of A Coruña (Spain), University of Sheffield (UK), INSA Lyon (France), and Aalborg University (Denmark) – and three leading national research institutes – Deltares (Netherlands), EAWAG (Switzerland), and IKT (Germany). The experimental facilities are designed for research across a range of applications, including urban flooding, runoff pollution, physics-chemical and biological in-sewer process, sustainable urban drainage systems (SUDS), performance analysis of urban assets (including SUDS), real time control, and asset deterioration. New digital water technologies and solutions for the monitoring and evaluation of these processes are also analysed in the framework of the project. More information on the research facilities and the facility providers is available [online](#). A full list and description of the facilities available for the 2nd TA call is provided in **Annex 1**.

Eligible costs

Co-UDlabs' TA programme covers all logistical, technological, training, and scientific support costs associated with selected TAs to any of the available research facilities. This includes **accommodation, travel, and sustenance costs** of all user-group members that visit the facilities in person. Reimbursements are regulated according to internal rules and procedures of facility providers, so long as the total costs do not exceed the total available per-TA budget of the institution in charge.

Information on estimated days of access and number of travels for each research facility can be obtained [online](#) on Co-UDlabs' website.

Feel free to contact specific facility providers through this [online form](#) for more detailed or updated information on available access days.

Support from facility providers

Scientists and technicians from involved facilities will offer full technical and logistical support for access to their installations, with the aim of providing the most effective context for top-level scientific and engineering research and innovation by selected user groups.

Local teams will help in the preparation of each visit. At least one research assistant and/or laboratory technician will be available at all times to visiting user-groups. Facility staff will also act as a local point of contact for logistical and technical queries. Both facility staff and user groups will convene meetings to discuss the progress of research and exchange ideas and proposals. Specific instrumentation, additional laboratory equipment or capacity, and support services from facility provider can be requested also during the preparation and finalisation of the TA proposals. A set of common supporting measures, however, is offered throughout the TA programme:

- Co-UDlabs has organised a [free Webinar](#) (June 20, 2023) providing an overall description of the project and the 2nd TA call. A **'hackathon'** event – which will award a preliminary visit to the facility of choice of the awarded user group – will be held closer to the end of the 2nd call (September 6, 2023) for a presentation of early-stage proposals and/or matchmaking activities for larger, more diverse, and interdisciplinary user groups to form.
- **Facility providers will be available for all preparatory steps** to the TAs: online meetings; online training whenever necessary before accessing the installations; administrative forms and documents for authorization of access to the organizations and to the facilities.
- **Facility providers will also provide support** with logistical support for local travel; specific on-site training, if needed; the preparation of the experimental setup and guided supervision; management of Health and Safety policy and requirements; data collection and data analysis of the different monitoring equipment; access to laboratory facilities and experimental areas for calibration of the equipment and performing, when relevant, conventional wastewater determinations (turbidity, pH, EC, temperature, solids, BOD, COD); when relevant, access to non-conventional pollutant determinations to be defined in the description of the proposal.

Modalities of access

Access will be provided according to either one of the following modalities:

- **In-Person Access (hands-on).** This modality has been designed for the access to the main laboratory facilities. The presence of at least one member of the user group is required during the whole period of the access. The visit of approximately 5 additional researchers at different stages of the project is also expected (e.g., configuration, installation and/or operation of specific equipment, supervision). **Access duration ranges from 15 to 60 working days.**
- **Partially Remote Access.** The presence of the user group is required at some stage of the access period (e.g., installing and un-installing user's equipment or configuring the facility). This modality of access is intended for mid- and long-term performance monitoring of processes, typically times of 2-9 months, which depends on external non-controlled factors (e.g., rainfall). During the development of these experiments, the facility owner will devote resources for maintenance and control of the experiment, and to transfer the gathered data to the user group. The visit of about 3 researchers is expected during the different stages of the project (configuration or deployment of equipment at the beginning of the project, during

the experiment or at the end to uninstall or dissemble). **The estimated in-person access time is from 10 to 20 working days**, depending on the facility.

Conditions of access

Details on the conditions for eligibility can be consulted in the rules and conditions document available on the official [TA call webpage](#) on our website. User groups must meet the following criteria:

- **It is possible to apply from all over the world**, but user groups where all or most users work in third countries (defined as not EU or EU-Associated country according to EU H2020 rules) can be supported as far as the cumulative access provided to them is below 20% of the total amount of days of access provided under the grant.
- The total number of researchers from the **Co-UDlabs partners may not exceed 1/3** of the total number of researchers in any eligible user group.
- Both the **user-group leader and the majority of the user-group members must work in a country other than the country where the facility is located**.
- Only user groups that are **allowed to disseminate the results** they have generated under the action may benefit from the access, unless the users are working for SMEs.
- The user-group members should **normally not have access to a similar facility**.

Application process and key days

June						
Mo	Tu	We	Th	Fr	Sa	Su
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

July						
Mo	Tu	We	Th	Fr	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August						
Mo	Tu	We	Th	Fr	Sa	Su
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September						
Mo	Tu	We	Th	Fr	Sa	Su
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October						
Mo	Tu	We	Th	Fr	Sa	Su
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November						
Mo	Tu	We	Th	Fr	Sa	Su
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

20/6	Co-UDlabs Webinar on 2nd call	06/10	End of 2nd TA call
03/7	Launch of the 2nd TA call	15/11	Selection of awarded proposals
06/9	Co-UDlabs TA Hackathon		

	Proposal preparation phase
	Proposal finalisation phase
	Proposal evaluation period

The proposals will be **evaluated by mid-November 2023**. The projects of the 2nd TA call are expected to be **fully completed by January 2025**.

Proposal preparation phase

All official documentation about the TA call will be available online on the Co-UDlabs website.

Co-UDlabs has also been active in disseminating information about the call and the steps leading to the awarding of the TA slots at its facilities. A **Webinar on the 2nd global call for TA proposals** was held on **June 20, 2023**. It featured a presentation of the Co-UDlabs project and a detailed introduction to the call's process, requirements, and calendar. A quick panel discussion also included testimonials by user-group members who participated in the 1st call, providing first-hand information and experience on the functioning of the TA programme. The webinar is available [online](#).

The **2nd TA call officially launches on July 3, 2023**, at a dedicated Workshop that Co-UDlabs has organised at the international Novatech 2023 conference.

A one-day **Co-UDlabs Hackathon** event on **September 6, 2023**, will allow potential user groups and research teams to either present early ideas and pre-proposals or meet with other researchers and practitioners to exchange ideas or form new user groups. Participants will be able to vote for the best provisional proposal. The winning team will be awarded a short visit to their Co-UDlabs facility of choice – where they can work directly with the providers to improve their proposals and finalise them for application.

While these supporting activities are not mandatory, they are recommended for potential user groups to become more familiar with the application process and enjoy an early dialogue with the facility providers. All interested groups and participants, however, **can contact Co-UDlabs facility providers at any time** via this [contact form](#). This channel is designed to offer potential applicants a way to learn more directly about technical constraints, feasibility, or eligibility conditions.

Final proposal submission phase

Project proposals will have to be uploaded via the Co-UDlabs website using the official templates, documents, and online form, available online on the TA call webpage of the Co-UDlabs website. All required documents must be submitted **no later than October 13, 2023, at 17:00 (CEST)**.

The following items are required:

- An **application form** which includes the title of the project, user-group leader information, and a request for a specific facility, number of access days and preferred dates for carrying out the project.
- A **project proposal**, not exceeding 4 pages including text, references, and figures. The proposal must provide information on the following sections:
 - a) **Excellence of the proposal**: a summary of the state of the art and general description of the project, highlighting the effectiveness of the research approach and its fit with the main themes of Co-UDlabs, the quality of the proposal and its novelty in the field of urban drainage, and the suitability of the team and its expertise to successfully carry out the proposal.

- b) **Impact of the expected results:** a proposal for project publications, workshops, and conferences to disseminate results and make it open available to the wider research and innovation community.
- c) **Potential for academic or industrial innovation** considering end-user applications of the expected project results and the possible further development of the research line outside the facility once the TA has been completed.
- **Methodology and access plan:** required research facility and equipment, technical details and specifications of the planned experiments, necessary modifications or adaptations of the facility setup, the estimated number of access days, and the number and duration of visits should be included. The document should contain technical details and specifications to aid the facility providers in assessing the project's feasibility (2 pages maximum).
- **User group CV:** composition of the user group, one-page CV of the user-group leader and a one-page CV summary for the rest of the user group.

Evaluation and selection procedure

TA proposals will be received and managed by the Co-UDlabs coordination at the Universidade da Coruña, which will check their **eligibility** in accordance with the **call's rules and conditions**. Please note that proposals exceeding length requirements, not using the official templates, or received after the final deadline **will not be considered** by the evaluators. Eligible proposals will be reviewed by the requested facility providers to assess their **feasibility**. After the feasibility check, applications will be sent to an **External Evaluation Panel (EEP)** of international independent scientists and end-users. Facility providers will have only an advisory role during the selection procedure. EEP members will be responsible for the independent evaluation of TA proposals, according to the following selection criteria:

- **Confirmation of Feasibility and Eligibility** (on a yes/no basis)
- **Excellence of the proposal** (weak: 0 – outstanding: 10)
- **Impact** (weak: 0 – outstanding: 5)
- **Potential for academic or industrial innovation** (weak: 0 – outstanding: 5)

Institutional diversity, multi-nationality, and interdisciplinarity in the composition of user groups will also be valued positively. Representation of the non-academic sector within user groups will also be encouraged. If two proposals have the same overall score, the number of new users (defined as those who have not been granted TA slots before and those who have not already had access to the requested facility outside of Co-UDlabs) and the gender diversity of the user group will be considered when assessing the proposals.

The user-group leaders of awarded proposals will be informed of the outcome and re-directed to the facility providers to coordinate their TA and negotiate and sign the User-Facility Agreement (UFA), which officially marks the beginning of the TA collaboration. Non-selected applicants will be informed by e-mail, alongside a summary of the evaluation and comments by the EEP and their final scores. Where appropriate, the report may also include recommendations and suggestions to improve and re-submit a new proposal for consideration of the EEP and the facility providers. Specific proposals may be recommended re-submission at a potential third call, which Co-UDlabs will take into consideration for late 2024.



Annex I: List of providers and facilities

Co-UDlabs has been designed to offer a range of complementary research infrastructures to cover the entire range of urban drainage systems processes: rainfall-runoff, surface wash-off, wastewater collection systems and their interactions with urban surfaces and soils, and the operation of ancillary assets such as pumping stations CSO infrastructures and Sustainable Urban Drainage Systems. Co-UDlabs provides access to the following research infrastructures and facilities (further details can be consulted online on our [Research Facilities](#) resource).

University of A Coruña

A Coruña (Spain)

<https://www.udc.es/citeec/hidraulica-en.html>



UNIVERSIDADE DA CORUÑA

1:1 scale street surface model (STREET)

In-Person Access



- Full scale model of a 36 m² street section (including buried drainage pipes) for studying rainfall processes, street flooding pollutant runoff and in pipe pollutant transport.
- Controllable rainfall is generated. Measurement capabilities include: Large-scale Surface Particle Image Velocimetry (LSPIV), online monitoring and automated sampling for sediments and other pollutants. Surface and inlets can be re-configured.

Scientific platform for urban runoff tests (BLOCK)

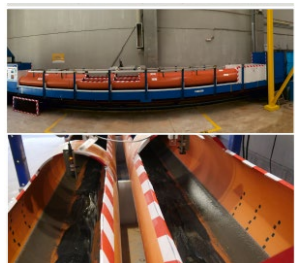
In-Person Access



- 100 m² rainfall simulator model with 1:4 scale model of an urban intersection for studying rainfall-runoff and the transport of pollutants on surface and in the drainage network. Controllable rainfall is generated.
- LSPIV system, online and automated monitoring and sampling procedures for sediments and other pollutants.
- Surface and inlets can be re-configured. 4 buildings models can be utilized to analyze different roof configurations, including green roofs.

Bens waste water flume facility (BENS FLUME)

In-Person Access



- Hydraulic flume (10 m length and 0.8 m width flume), variable slope and adjustable downstream boundary condition, can be internally re-configured with pipe sections.
- Wastewater can be routed through and used in the facility, making the flume unique at the international level. Online probes (turbidity, absorbance), acoustic velocimetry, auto-samplers for collecting quality samples, with chemical and microbiological analysis capabilities.



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University of Sheffield

Sheffield (UK)

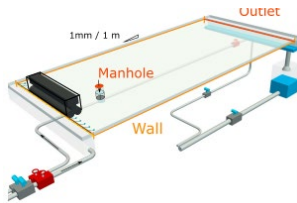
<https://www.sheffield.ac.uk/civil/water>



The
University
Of
Sheffield.

Above/Below Ground Urban Drainage Facility (A/B FLUME)

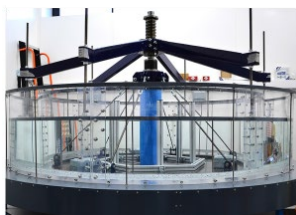
In-Person Access



- System comprises of a 75 mm diameter pipe below a 4 m x 8 m surface model to simulate/characterise interaction of underground drainage and surface flows. LSPIV and automated solute concentration measurement. Steady and unsteady events can be re-produced.
- Adaptable system, re-configurable to different street/building layouts.

Temperature controlled Annular Flume (ANNULAR)

In-Person Access



- The annular flume is a unique facility in that we can operate it with wastewater to study microbial and biochemical processes that would be found within a sewer, under different environmental (temperature and nutrient) conditions at pilot scale.
- Advanced chemical and molecular microbiological analysis are available.

Full Scale Buried Water Infrastructure Test Facility (BURIED)

In-Person Access



- This is a facility to study buried urban drainage infrastructure. It consists of a 45 m x 6 m x 5 m test tank, that can be split into sections in which different buried drainage infrastructure can be created at full scale and subject to surface/pressurized flows, groundwater flows, surface loadings and pollution.
- Full scale asset performance can then be studied and the interactions between different pressures on asset performance and deterioration can be determined.

Real Time Control Testing Facility (RTC Rig)

In-Person Access



- Full scale system with three linked manholes and a CSO chamber. Flow monitoring and control is installed.
- Allows planned, systematic testing of Real Time Control RTC strategies and control systems under different hydraulic regimes.

Deltares

Delft (The Netherlands)

<https://www.deltares.nl/en/facilities>



Alpha-loop (A-LOOP)

In-Person Access



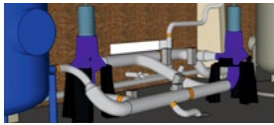
- Full scale three-phase capable pressurized pipeline. Combined with the measurement expertise at Deltares provides a unique observation platform for gas, water and sediment interaction and transient flow and thermal phenomena in a simulated pressurized sewerage transport network.



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Beta-loop (B-LOOP)

In-Person Access



- Unique full-scale pipeline for the study of non-Newtonian slurry flows in pressurized networks.
- This facility can serve to control and investigate rheological conditions in concentrated domestic slurry transport systems.

EAWAG

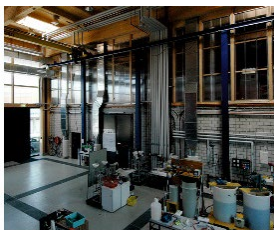
Dübendorf (Switzerland)

<https://www.eawag.ch>

eawag
aquatic research ooo

Experimental Hall-recirculating flume (HALL)

In-Person Access



- The experimental hall is a 500 m² test facility for urban drainage and process engineering experiments. It has a fixed installation of flume facilities (4 m length), which allow for temperature-controlled experiments with live raw and (pre) treated wastewaters as well as surface waters.
- The facility is equipped with autosamplers and various flow and level meters, as well as online sensors to monitor water quality (temperature, pH or EC, acoustic turbidity).

Urban Water Observatory – Digital Lab (UWO)

Partially Remote Access



- The UWO digital lab is a unique field site because of the high density of quantity and quality sensors (+80) in a real sewer combined network.
- Calibrated hydrodynamic network model with historical rainfall data. Historical pesticide datasets from online LC-MS-Mass spectrometer.

IKT

Gelsenkirchen (Germany)

<http://www.ikt-online.org/>

neutral
independent
non-profit institute
IKT
IKT - Institute for Underground Infrastructure

IKT Hydraulic Test Stand (IKT TEST)

In-Person Access



- Modular facility with a water transport/circulation system for testing hydraulic capacity of full-scale pumps, throttles, gullies, DIBt (<https://www.dibt.de/en/>) accredited test stand for decentralized stormwater treatment plants.



INSA

Lyon (France)

<http://deep.insa-lyon.fr/>

Green ROOF experimental Facility (GROOF)

**Partially Remote
Access**



- GROOF is an experimental facility with 6 green roof platforms (3 m x 3 m). The platforms allow comparative mid- to long-term hydrological performance assessment of various green roof configurations. A complete weather monitoring station is installed. Specific outflow and evaporation measurements are also available.
- GROOF is highly flexible and adaptable (green roofs can be re-configured).

Django Reinhardt detention and settling basin (OTHU-DRB)

**Partially Remote
Access**



- The Django Reinhardt detention and settling basin is an “end of pipe” facility that enables to intercepts up to 80% of stormwater particulate pollutants.
- LSPIV is available. Users can implement sensors for quantity and quality measurements at the inlet and outlet of the basin. Historical data collected for 15 years are available. It is also possible to investigate trace metal sediment contamination.

OTHU SuDS research facilities (OTHU SuDS)

**Partially Remote
Access**



- OTHU SuDS include a porous pavement car park (90 m²), a swale (290 m²) and an infiltration trench (240 m²). Event-based rainfall, flow rate and micropollutants data have been recorded for 4 years. The facility allows the installation of new sensors.

Aalborg University

Aalborg (Denmark)

<https://www.aau.dk>

Frejlev research station (FREJLEV)

Partially Remote Access



- Frejlev research and monitoring station receives combined and separated sewage water from the urban city Frejlev. The city has around 2,800 inhabitants and consists primarily of residential areas.
- Inline access to a continuous flow of sewage water and full list of water quality equipment allows conducting unique wastewater process research.



Annex II: European Union and associated countries list

This annex is a non-exhaustive list of countries that have no restrictions on access to research facilities based on the Horizon 2020 Regulation. In case of any conflict with the H2020 Regulation,¹ the latter shall prevail.

- Albania
- Armenia
- Austria
- Belgium
- Bosnia and Herzegovina
- Bulgaria
- Croatia
- Cyprus
- Czechia
- Denmark
- Estonia
- Faroe Islands
- Finland
- France
- Georgia
- Germany
- Greece
- Hungary²
- Iceland
- Ireland
- Israel
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Moldova
- Montenegro
- Netherlands
- North Macedonia
- Norway
- Poland
- Portugal
- Romania
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Tunisia
- Türkiye
- Ukraine
- United Kingdom

¹ Please refer to the following regulations: [Horizon 2020: List of countries eligible for funding](#); [Horizon 2020: Associated countries](#); [Horizon 2020: international cooperation](#).

² The participation of Hungarian institutions and individuals can be discretionarily rejected in accordance with [Council Implementing Decision 2022/2506](#), which stipulates that legal commitments must not be entered into with any public interest trusts established on the basis of the Hungarian Act IX of 2021 or any entity maintained by such a public interest trust.



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Co-UDlabs project aims to develop innovative solutions and technologies to allow existing UD to innovate for better facing current and future challenges such as increasing urbanization and climate change.

Please feel free to contact Co-UDlabs at this address: contact@co-udlabs.eu

You can follow us on:

- [Twitter](#) @CoUDlabs
- [LinkedIn](#)

You can visit our website: <https://co-udlabs.eu/>

You can contact our facility providers: <https://co-udlabs.eu/facility-contact-form/>

You can download our TA brochure: <https://is.gd/TABRochure>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°101008626