



# Free Access to Major Experimental Facilities in the theme: 'More than Water' Call for Proposals



Research teams with a majority of team members from the European Union and Associated States (Iceland, Israel, Liechtenstein, Norway, Switzerland and Turkey) are invited to submit proposals for access, free of charge, to major and unique facilities at top institutes in Europe. These are experimental facilities in the field of hydraulics, geophysical hydrodynamics, environmental fluid dynamics and ice engineering. The theme of Hydralab is 'More than water' and each experimental facility contributes to one or more of the 4 elements within this theme (see also table below):

1. Water & Sediment
2. Water & Structures
3. Water & Environmental Elements (with focus on ecology and biology)
4. Water & Ice (with focus on interaction with structures)

The access is funded by the 7th EC framework programme through the Integrating Activity HYDRALAB IV. There are 18 experimental installations involved, which are listed below. More information on the facilities is available at the website: <http://www.hydralab.eu>.

The programme provides user groups access free of charge to the facilities for their research project and covers travel and subsistence costs. The programme is intended for short access periods, not exceeding 3 months. State-of-the-art measuring instruments, data-acquisition and processing systems will be at their disposal, as well as modern support facilities, such as library, computers, processing and printing. Furthermore, the visiting researchers are offered a scientific intellectual environment, with assistance and guidance from experts at the host institute. Previous background in laboratory techniques is not a prerequisite as technical support and training are provided.

User groups are only eligible when the team leader and the majority of researchers are conducting their research in the EU or Associated States, but outside the host country of the facility. Details on the eligibility conditions, selection procedure, and rules of access can be found at the web site [www.hydralab.eu/access\\_rules.htm](http://www.hydralab.eu/access_rules.htm).

You are invited to submit a completed [proposal form](#) and a research proposal to the facility provider(s) at the addresses given below, preferably by e-mail.

The research **proposal must not exceed 4 pages** (incl. text, references and figures) and must contain the following sections:

- Scientific context of the study (incl. reference to the state-of-the-art and relevant measurements carried out in the past)
- Scientific objectives
- Theoretical framework and methodology
- Proposed analysis of the results
- Publication plan
- Justification for access
- The role of each team member

A **1-page description** of model set-up (if relevant), additional technical details and specifications to aid the facility providers in assessing the project feasibility may be added. **CVs** for each researcher (not exceeding 1 page per researcher) should also be attached as a separate appendix. Please note that proposals exceeding the above page limits cannot be considered by the User Selection Panel.

**The deadline for proposals is:**

- **Grenoble Coriolis table:** **December 18, 2010.**
- **All other facilities:** **January 30, 2011.**

It is highly recommended to send a draft proposal to the infrastructure manager, as early as possible but at least 4 weeks before the deadline. By doing so, the facility manager can advise users with

respect to technical constraints, feasibility or eligibility conditions and provide additional information aimed at improving your final proposal.

<i>Type</i>	<i>Short name &amp; Provider</i>	<i>Location</i>	<i>Theme</i>	<i>Some main unique features</i>
<b>Large wave flumes</b>				
	Large Wave Flume, GWK <a href="#">Forschungszentrum Küste</a>	Hannover, Germany	1, 2 & 3	Longest flume in the world for large-scale research with depth of 5.0 m and waves up to 2.5 m ( $H_{\max} = 1.3$ m).
	Delta Flume <a href="#">Deltares facilities</a>	Noordoostpolder, the Netherlands	1, 2 & 3	Large-scale flume with largest significant wave height in Europe: $H_{\max} = 1.7$ m (regular waves up to 2.5 m high), with a 9 m deep section.
	CIEM <a href="#">CIEMlab UPC</a>	Barcelona, Spain	1, 2 & 3	Largest flume with wedge paddle type (deep and intermediate wave condition), 4 m water depth and waves up to $H_{\max}=1.5$ m.
<b>Special purpose flumes</b>				
	Stratified Water Flume <a href="#">CNRS/CNRM-GAME</a>	Toulouse, France	2 & 3	Stratified Water Flume of 22 x 3 x 1 m. Well suited for experimental modeling of atmospheric and oceanic flows.
	Schelde Flume <a href="#">Deltares facilities</a>	Delft, the Netherlands	1, 2 & 3	A 110 m long flume with second-order waves, unique for its accuracy and versatility, in combination with steady current.
<b>Multi-directional Wave Basins</b>				
	Ocean Basin <a href="#">MARINTEK</a>	Trondheim, Norway	2 & 3	Very large basin of up to 10 m deep, with wind, waves up to 0.9 m high and steady current to test fixed and floating structures.
	Offshore Wave Basin <a href="#">DHI</a>	Hørsholm, Denmark	1, 2 & 3	3 m deep basin with 12 m deep central pit. 3D wave generation, internal steady current circulation and wind loading
	Shallow Water Basin <a href="#">DHI</a>	Hørsholm, Denmark	1, 2 & 3	3D wave facility with active wave absorption by the wave board. Current circulation, wind loading and optional secondary uni-directional wave generation.
	Delta Basin <a href="#">Deltares facilities</a>	Delft, the Netherlands	1, 2 & 3	Basin (50x50m) with swell and short crested waves with directional spreading, combined with directional wave absorbing by the wave board (reflection compensation system).
<b>Environmental hydraulics facilities</b>				
	Sletvik Field Station <a href="#">Norwegian University of Science and Technology</a>	Trondheim, Norway	3	Field station at landlocked bay with narrow, tidally-driven inlet ideal for studying ecology in combination with hydrodynamics.
	Water & Soil Flume <a href="#">Deltares facilities</a>	Delft, the Netherlands	1, 2 & 3	Versatile and multifunctional flow facility of 50x5,5 m and up to 2.5 m water depth for experiments, especially concerning water and soil interactions with soils such as silt, sand, clay or rock.
	Rotating Annular Flume <a href="#">Deltares facilities</a>	Delft, the Netherlands	1 & 3	Erosion of cohesive, biochemical and polluted sediments. Temperature and oxygen controlled tests with bio-chemical or polluted (cohesive) sediments in fresh and salt water.
	Total Environment Simulator <a href="#">University of Hull</a>	Hull, United Kingdom	1, 2 & 3	Current ( $1\text{m}^3/\text{s}$ ), waves (0.3m) and rainfall in fresh or saline water for sediment transport in rivers, estuaries or coasts. PIV & LDA. Supports plants and animal experimentation.
<b>Oceanography</b>				
	Grenoble Coriolis table <a href="#">CNRS/LEGI</a>	Grenoble, France	2 & 3	Diameter of 13 m and height of 8 m. For experimental modelling of oceanic or atmospheric flows, with or without density stratification or topography. Deadline proposals: Dec. 18, 2010
<b>Ice facilities</b>				
	Arctic Environmental Test Basin (AETB) <a href="#">Hamburg Ship Model Basin</a>	Hamburg, Germany	2, 3 & 4	Ice tank (30 x 6 x 1.2 m) with minimum temperature of $-16^{\circ}\text{C}$ . Wave maker, current generators. Suitable for arctic marine biology and chemistry experiments, oil spill investigations
	Large Ice Model Basin (LIMB) <a href="#">Hamburg Ship Model Basin</a>	Hamburg, Germany	2, 3 & 4	78 m long ice tank, 10 m width, 2.5 m average water depth, 10 x 12 m deep water section (5 m water depth). Minimum temperature $-20^{\circ}\text{C}$ . Removable shallow water bottom. Computer controlled main and transverse carriage, service carriage and crane facilities.
	Ice Tank <a href="#">Aalto Ice Tank</a>	Helsinki, Finland	2, 3 & 4	The ice tank facility is 40m wide, 40m long and has a 2.8m depth. It is equipped with a carriage that can reach any point of the basin.
<b>Geotechnical facility</b>				
	Geocentrifuge <a href="#">Deltares facilities</a>	Delft, the Netherlands	1 & 2	The soil water interaction can be studied in this facility on small-scale, but with increased gravity up to 300g, thus coping with the scale problems. Can be equipped with a wave generator.

Proposals are reviewed by a User Selection Panel of which the outcome is expected to be known by April 2011 (for Grenoble Coriolis table: February 2011). The primary criterion for selection is the scientific merit. Secondary criteria, among others, are used to encourage the participation of first-time users, active female participation, trans-national research teams and interaction with the host institute.

For more information please contact:

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This call for proposals is also available at [www.hydralab.eu](http://www.hydralab.eu) .