

PRESS RELEASE

Small-hydropower solutions from Europe are on their way to Central Asia

20th / 21st June 2023

During a two-day meeting, a partnership of organisations from European and Central Asian research and industry evaluated the progress of their past activities within the EU-funded project Hydro4U while also discussing the next steps. As the project is currently on time within the foreseen schedule, the aim is to keep the planned timeline of the small-hydro-power solutions in the Shakimardan Enclave (Uzbekistan) and At-Bashy (Kyrgyzstan). The Hydro4U project ensures eco-friendly small-hydropower solutions in these two demonstration sites.

Central Asia is a region with a large theoretical potential for electricity generation from hydropower. For decades, electricity generation from hydropower has been playing a significant role especially in the upstream countries. However, the existing hydropower fleet consist mainly of old facilities, while new developments have been rather limited.

The core of the Hydro4U project is therefore to design, implement and assess two real-scale small hydropower plants with two pre-defined European technology solutions which are both following a modular and scalable approach:

- At the Shakimardan Enclave (Uzbekistan): A medium-head small hydropower facility using the Francis-Container-Power-Solution manufactured by Global Hydro. The Francis Container Power Solution (FCPS) will be demonstrated in collaboration with state utility Uzbekgidroenergo.
- In At-Bashy (Kyrgyzstan): The low head run-of-river hydroshaft concept will be incorporated in an existing diversion weir. The Hydroshaft Power Solution (HSPS) will be demonstrated in partnership with the private company Orion LLC.

The demo-sites will show how hydropower production and ecological conservation can benefit from each other.

On two consecutive days in June, the 13 Hydro4U project partners from 8 countries met online to discuss past activities and to continuously plan future actions.

During the first part of the project, the major focus lied on data collection and the establishment of further partnerships in the region, with important stakeholder such as government bodies, authorities, NGOs, utilities, private project developers, farmers as well as the local residents.

A high-quality database containing hydrological, topography, environmental and socio-economic information was established to build a solid basis for the forthcoming activities.

Regarding the current status of the technology solutions, the overall technical design of the two demonstration plants, the manufacturing of the container solution and the construction work on-site in Shakimardan have already started and are progressing well.

Besides technology development, the consortium members have also implemented innovative tools and methods for planning and assessment, in order to



The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022905.

establish their application in Central Asia and raise awareness on the importance of an environmentally compatible use and replication of hydropower potential. On a larger scale, the assessment of the hydropower potential has been started by creating a GIS-database containing all relevant information. In parallel, the elaboration of a Water-Energy-Food-Climate Nexus monitoring and accounting system has started and is set to manage water resources in a sustainable way to share energy and agriculture benefits in a climate-sensitive manner and improve transboundary cooperation.

In order to enhance further developments, replication activities have also been put in place. The goal thereby is to prepare further commercial possibilities for the consortium members while the project is ongoing. This is mainly done via the elaboration of a replication plan in close connection to the mentioned assessments of the hydropower potential. These represent bankable feasibility studies for small hydropower projects in collaboration with potential local investors.

With the focus on inclusion of local and regional stakeholders, the Hydro4U project also proves its commitment to have a positive socio-economic impact on Central Asian countries. At both demonstration sites, local communities have been involved in the planning process and showed major interest in their successful implementation, as they expect to profit from them through increased energy security, labour possibilities, knowledge transfer and increased visibility.

Through the partnership with local companies for the implementation and later operation of the demonstration power plants, significant transfer of knowledge and the raise of awareness on environmental impacts of human development is achieved.

The project Hydro4U partners look forward to the next steps of implementation in the upcoming 6-12 months.

Further information on Hydro4U:

Website: www.hydro4u.eu

LinkedIn: [Hydro4U](#)

Twitter: [@Hydro4Uproject](#)

YouTube: [Hydro4U](#)

Flyer EN/RU: download [Flyer](#)

Newsletter subscription: [Newsletter - Hydro4U](#)



About Hydro4U:

Hydro4U receives funding from the European Union's Horizon 2020 Research and Innovation programme.

Grant Agreement number	101022905
Type of project	Innovation Action
Coordinator	Technical University of Munich
Project duration	01/06/2021 – 31/05/2026
Total Project budget	11 488 428.03 €
Total EC funding	9 931 160.13 €
Consortium	13 partners from 8 countries (Germany, Austria, Switzerland, Sri Lanka, Uzbekistan, Spain, Belgium, Kyrgyzstan)

Contact:

Coordinator: Technical University of Munich: Bertalan Alapfy; E-mail: coordination@hydro4u.eu

Press contact: Steinbeis Europa Zentrum: Charlotte Schlicke; E-mail: info@hydro4u.eu



The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022905.