Interreg
CENTRAL EUROPE
European Union
European Regional
Development Fund

DEEPWATER-CE

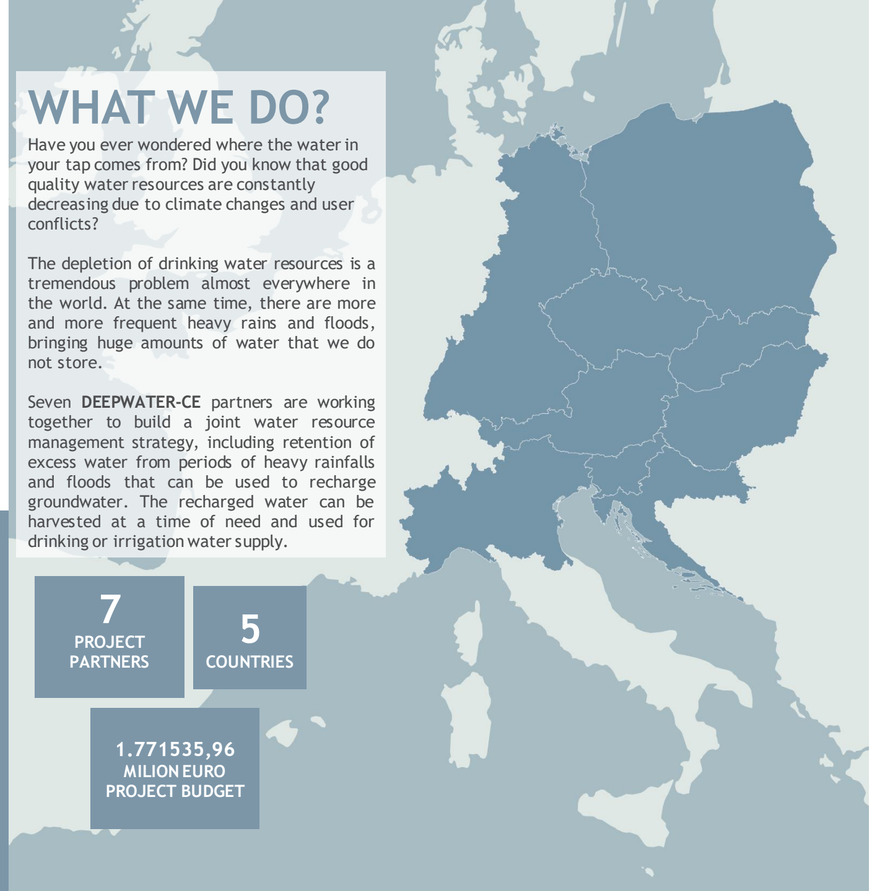
Development of an integrated implementation framework for managed aquifer recharge solutions to facilitate the protection of Central European water resources endangered by climate change and user conflict

WHAT WE DO?

Have you ever wondered where the water in your tap comes from? Did you know that good quality water resources are constantly decreasing due to climate changes and user conflicts?

The depletion of drinking water resources is a tremendous problem almost everywhere in the world. At the same time, there are more and more frequent heavy rains and floods, bringing huge amounts of water that we do not store.

Seven **DEEPWATER-CE** partners are working together to build a joint water resource management strategy, including retention of excess water from periods of heavy rainfalls and floods that can be used to recharge groundwater. The recharged water can be harvested at a time of need and used for drinking or irrigation water supply.



7
PROJECT PARTNERS

5
COUNTRIES

1.771535,96
MILION EURO
PROJECT BUDGET

WHO WE ARE?

Partners from five Central European countries join their forces to develop integrated environmental management capacities of responsible public actors for a comprehensive transnational approach water resources and adoption of MANAGED AQUIFER RECHARGE (MAR) solutions in Central European (CE) countries as a solution to climate change induced water scarcity and decreasing usage conflicts with other social and economic sectors.

HUNGARY

- MINING AND GEOLOGICAL SURVEY OF HUNGARY
- GEOGOLD KÁRPÁTIA LTD.

POLAND

- UNIVERSITY OF SILESIA IN KATOWICE

CROATIA

- CROATIAN GEOLOGICAL SURVEY
- SPLIT WATER AND SEWERAGE COMPANY LTD

SLOVAKIA

- WATER RESEARCH INSTITUTE

GERMANY

- TECHNICAL UNIVERSITY OF MUNICH

DISCOVER MORE ABOUT

DEEPWATER-CE

LinkedIn discussion platforms:

National Virtual Squares

HUNGARY
https://www.linkedin.com/groups/8913723/
GERMANY
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POLAND
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CROATIA
https://www.linkedin.com/groups/12438067/

Transnational Virtual Square
https://www.linkedin.com/groups/13760882/

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MBFSZ Mining and Geologic Survey of Hungary

At our official webpage you can find more information about the aims of the project, the partners involved, project news and events, and our outputs.

FUNDING

Our project is funded by the Interreg Central Europe Programme that encourages cooperation on shared challenges in Central Europe. With 246 million Euro of funding from the European Regional Development Fund, the programme supports institutions to work together beyond borders to improve cities and regions in Austria, Croatia, Czech Republic, Germany, Hungary, Italy, Poland, Slovakia and Slovenia.

ABOUT

DEEPWATER-CE

The project activities have been structured to develop an integrated implementation framework for Managed Aquifer Recharge solutions to facilitate the protection of Central European water resources endangered by climate change and user conflict.

MANAGED AQUIFER RECHARGE (MAR) is a viable approach for collecting excess surface water and precipitation in periods characterized with water abundance, and storing it for dry times in aquifers.

FACTS AND FIGURES

7 Project partners

4 Pilot actions

30.04.2022 Timeline

Outputs

Trainings for knowledge transfer on MAR solutions and their environmental and economic benefits (sets of webinars, training sessions)

Transnational decision support toolbox for designating potential MAR locations in Central Europe in form of a handbook

Pilot feasibility study of MAR schemes with integrated environmental approach in four pilot areas in porous hydrogeological conditions in Hungary, Poland and Slovakia and in karst geological conditions in Croatia

Policy recommendations and national action plans for adopting MAR solutions in national water management regulations in Central Europe.

TOOLS & TRAININGS

The transnational decision support toolbox comes as a handbook including a set of checklists for the selection of MAR locations in Central Europe.
The checklists are based on the selection criteria per each of the qualifiers defined in the different activities:

- on hydrogeological conditions

Where is it possible?

- on climatic scenarios

Where will it be necessary?

- on extreme situation cases

How to adapt to potential adverse impacts?

TRAININGS will take place through the national fora, via sets of webinars or personal meetings in local language and tailored to the local contexts. The trainings will target stakeholders from different sectors to transfer knowledge transfer on MAR solutions and their environmental and economic benefits.

National training sessions will concern on :

- MAR topic and collection of good practices
- Decision support toolbox about on how to select MAR locations,
- Pilot feasibility studies and policy recommendations

PILOT ACTION

In four pilot sites different hydrological, hydrogeological and geophysical measurements will be carried out to designate the best locations for MAR establishment and prepare feasibility studies based on a commonly developed methodology. Field studies will be carried out at the selected pilot sites here throughout 2 hydrologic seasons to ensure enough data to be collected.

Island of Vis, Croatia
study on karst semiarid hydrogeologic conditions is being deployed.

Maros alluvial fan, Hungary
study on the covered paleo-channels of Maros River.

The Žitný ostrov, Slovakia
The pilot site area is delineated by canals with technical possibilities for water flow control, i.e. creating Recharge Dam MAR type.

Tarnów Waterworks, Poland
study on the porous aquifers which are located near industrial sites that pose a serious threat for the quality of water in shallow aquifers.

CROATIA
Stiniva cove

HUNGARY
Maros alluvial fan

POLAND
Tarnów Waterworks

SLOVAKIA
Podunajska lowland

STRATEGIES AND ACTION PLANS

The results of pilot feasibility studies will be used to prepare policy recommendations in order to channel MAR solutions in national river basin management plans and water management strategies. Policy recommendations will be drafted with the support of cross-sectoral stakeholders to ensure that the documents mirror the integrated environmental needs, including social, economic and ecologic aspects variables.

4 national action plans will define how, when, who, and with which resources MAR should be adopted in the water management policy in Hungary, Poland, Slovakia and Croatia