

AQUARES
Interreg Europe



European Union
European Regional
Development Fund

ACTION PLAN

Achieving efficient water management through water reuse and ensuring the protection of water resources.

RRAPK

REGIONÁLNÍ ROZVOJOVÁ AGENTURA
PARDUBICKÉHO KRAJE

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1 Introduction

Project: AQUARES. *Water reuse policies advancement for resource efficient European regions.*

Partner organization: Regional Development Agency of the Pardubice Region (Czech Republic)

Other partner organizations:

- 1) Regional Government of Murcia, Ministry of Water, Agriculture, Livestock and Fisheries, General Direction of Water (Spain)
- 2) Ministry of Environment and Energy, Special Secretariat for Water (Greece)
- 3) Lodzkie Region (Poland)
- 4) Energy and Water Agency (Malta)
- 5) Lombardy Foundation for the Environment (Italy)
- 6) Water Board of Oldenburg and East Frisia (Germany)
- 7) Euro - mediterranean Water Institute Foundation (FIEA) (Spain)
- 8) Association "Baltic Coasts" (Latvia)
- 9) The Municipality of Trebnje (Slovenia)

Country: Czech Republic

Region: NUTS2 Northeast

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1.1 Project AQUARES

Project AQUARES (*Water reuse policies advancement for resource efficient European regions*) is a project under the INTERREG Europe programme that aims to improve the implementation of regional development policies and programmes in the partnership regions, to increase resource efficiency, green growth, and environmental performance management in the water reuse sector.

The project brings together 10 public organizations from 9 different European countries with the aim to achieve better water management of water resources through water reuse. There is a consortium of partners within which everyone cooperates, and there is a mutual exchange of experiences, procedures and solutions in the field of wastewater reuse.

The aim of the project is to improve water policies and concepts by integrating waste water reuse into national, regional and local development plans to promote the efficient use of waste water resources. The project will increase the ability of public authorities to make changes to draft directives on the Water and Drinking Water Framework Directives. The project emphasizes best practices for ensuring compliance with water quality standards. It also supports the adoption of sustainable development and eco-innovation in agriculture, industry, urban and recreational areas. Last but not least, the project draws on the experience of partner countries through the adoption of technological and managerial innovations in the field of water reuse in various sectors.

AQUARES contributes to the objectives of the EU 2020 strategy, according to which water reuse is one of the five priority areas for action by the European Innovation Partnership on Water.

1.2 RRA PK

The Regional Development Agency of the Pardubice Region (RRA PK) is an non-governmental, non-political and independent association of legal entities, which has been supporting the development of the Pardubice Region since 1999. To achieve this goal, it works closely with the public administration of the region, especially with local governments. The task of RRA PK is to represent the interests of local government in regional institutions, to coordinate problems connected with the development of towns and municipalities and to cooperate with central state bodies and regional administration. It focuses its activities on the development of human resources and education, transport infrastructure, the environment, tourism or the restoration of cultural monuments. The mission of RRA PK is to support the development of the Pardubice Region and to provide support and advice to members and other entities in the field of strategic planning, grant titles and other areas related to regional development.

1.3 Water reuse in the Czech Republic

Water recycling is the key to its sustainability not only in dry climate areas of Europe where water is scarce, but also in the Czech Republic. The reuse of wastewater, which after treatment has even higher quality or quality suitable for further use, is a current pan-European topic. When using eco-innovation, water recycling can contribute to the efficient use of resources in areas such as wetland restoration, crop irrigation, increasing industrial use (water usable for concreting, for example) or improving soil quality and improving landscape retention.

The Czech Republic, as a country that lies on a watershed, is practically dependent on the amount of rainwater. For this reason, it is particularly important to make the most of all the water that falls into our territory and to prevent it from draining quickly from our territory. One way to save water resources is to reuse water where possible. The first priority is the use of low-pollution water for further activities or the re-use of treated wastewater, which is in many of cases better quality than surface water.

The Czech Republic shares the idea of efficient water management and broadly supports the steps proposed by the European Commission in its Communication from the

Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Closing the Cycle - An EU Circular Economy Action Plan [COM (2015) 614; COM (2015) 614/2]. Among other things, the European Commission has committed itself to introducing measures that will increase the efficiency of water management in terms of reuse of treated wastewater under safe and cost-effective conditions, including the provisions of legislation on minimum requirements for water reuse.

The aim of these measures is to reduce the pressure on overexploited EU water resources as well as to recycle nutrients to replace solid fertilizers in agriculture.

2 Policy instrument

Policy instrument that influenced the Action Plan:

Investing in the growth and jobs agenda	YES/ NO
European Territory Cooperation Programme	YES/ NO
Other regional policy development instruments	YES / NO

2.1 Operational Programme Environment 2014-2020

The policy instrument that was to be affected by the AQUARES project output is the Operational Programme Environment 2014-2020. Due to the ending programming period, the action plan is targeted for the following programming period 2021-2027 (see chapter 2.3). One of the EU objectives in the 2014-2020 programming period was wastewater management. Specifically, this was thematic objective 6 - Preserving and protecting the environment and Promoting the efficient use of water resources. This topic is followed up in the Czech Republic by support under the Operational Programme Environment, specifically Priority Axis 1 - Improving water quality and reducing flood risk. Under this priority axis, financial contributions have been provided mainly to public bodies to reduce pollution of surface and groundwater, to improve the quality and supply of drinking water for the population, to ensure flood protection and to reduce the risk of flooding.

2.2 Regional Strategy for Adaptation Measures in the Pardubice Region

Within the framework of the AQUARES project activities, RRA PK established cooperation with project stakeholder - Envicons s.r.o. In the first phase of the project, RRA PK, Envicons s.r.o. and the Pardubice Region cooperated in the development of a document called Regional Strategy for Adaptation Measures in the Pardubice Region (ReSAO).

There is the objective C.2.3.1 to develop the so-called Regional Strategy for Adaptation Measures (ReSAO) among the activities of the Pardubice Region, which are listed in the document Strategy for the Development of the Pardubice Region 2021 - 2027. The aim of this strategy is to propose the necessary measures that will lead to the elimination of the impact of climatic drought on the landscape and environment in selected areas of the Pardubice Region.

The main objective of this strategy is to propose a professionally correct and functional way of adapting the landscape to the negative impacts of climate change with the main focus on sustainable management in an attractive cultural landscape. The ReSAO project is envisaged as a four-year project, with further detailed design and implementation of the proposed measures expected after the project is completed.

The above-mentioned adaptation measures are also a priority activity within the preparation of the programme document of the Operational Programme Environment 2021 - 2027 and within the strategy of adaptation measures in the Pardubice Region, RRA PK participated in the preparation of this document. By its participation in the preparation of this document, it influenced the policy instrument of the OP Environment 2021 - 2027.

2.3 Environmental Operational Programme 2021-2027

The Programme Document of the OPIE 2021 - 2027 is currently being prepared, where the specific objective 1.1 Support for energy efficiency measures (blue-green infrastructure) and 1.4 Support for sustainable water management can be found under Priority Axis 1. This specific objective will be supported in particular by activities aimed at improving the quality of surface and groundwater and improving the supply of drinking water to the population. Activities such as: construction and modernisation of water supply pipelines and water supply lines, construction and intensification of water treatment plants, addition of technologies for the removal of specific pollutants, revitalisation of existing water sources will be supported.

High priority measures in the proposed programme document of the Operational Programme Environment 2021 - 2027 include:

- Nature-based adaptation measures in the context of climate change (see Chapter 2.2 - Adaptation Strategy for the Pardubice Region);
- Improving urban wastewater treatment;
- Stormwater retention/capture and measures to address contamination, runoff and water quality.

The above-mentioned areas are included in the programme document on the basis of cooperation between local authorities and the entities concerned.

In the context of the prepared OPIE programming document for the period 2021 - 2027, RRA PK had the opportunity to directly influence this document with its revisions and comments. In cooperation with the Department of Environment and Agriculture of the Pardubice Region, RRA PK revised the OPEP programming document for the period 2021-2027, where revisions and comments were made on three specific objectives: 1.3, 1.4 and 1.5.

2.4 Regional Innovation Strategy of the Pardubice Region

Another strategic document that has an impact on policy instruments is the Regional Innovation Strategy of the Pardubice Region (hereinafter RIS3 Strategy), which is the main conceptual document of the Pardubice Region in the field of science, research, development, innovation and entrepreneurship. The first version of the document was approved by the Regional Assembly of the Pardubice Region in 2014, followed by an update of the document in June 2019. RRA PK participated in this update.

With the existence of the RIS3 strategy, the Pardubice Region fulfilled the preliminary requirements of the European Union for drawing European funds in the field of research and innovation. The update was triggered by the requirement to incorporate some new topics into the regional RIS3 strategies in connection with the preparation of the 2021-2027 programming period and related basic conditions. The update of this document was prepared by the core team responsible for the implementation of the Smart Accelerator of Pardubice Region II project, whose partner and implementer with financial contribution is RRA PK.

The topic of circular economy for recycling grey water and water retention in the landscape is one of the activities implemented in the Regional Innovation Strategy of the Pardubice Region thanks to the AQUARES project. In this strategic document, the project is listed as an example of good practice within the internationalisation activities of the Pardubice Region.

RIS3 is not a financial instrument, but the link between the RIS3 strategy and the use of subsidies from the OP PIK and the OPEI is significant. Within the framework of the implementation of the Smart Accelerator project of the Pardubice Region (thanks to which the RIS3 strategy was updated) and its subsequent continuation through the follow-up project Smart Accelerator of the Pardubice Region II, innovation vouchers are provided to SMEs and research organisations engaged in innovation. Currently, support in the form of innovation vouchers for municipalities in the Pardubice Region is being prepared to provide a contribution to the implementation of projects from the Modernisation Fund (State Environmental Fund) aimed at energy-saving measures in municipalities and companies. Within the framework of the vouchers, we can expect the adoption of a voucher that will deal with innovations in the field of circular economy, including the reuse of grey water.

The RIS3 strategy itself is a key document for drawing subsidies across the operational programmes, where the applicant must demonstrate compliance with this strategy in the implementation of a specific project.

3 Action plan and its objectives

Municipalities and businesses should have an enabling environment that allows them to develop their capacity to contribute to economic growth and to maintain and strengthen social cohesion. It is also important to see the need for a circular economy in the activities of these entities. These are mainly stakeholders and project partners interested in the topic of wastewater reuse and water retention in the landscape.

Wastewater recycling has the potential to reduce the consumption of drinking water used for purposes where drinking water quality is not essential, such as toilet flushing and irrigation. The basic purpose of the circular economy is to use waste as a resource. It is nowadays one of the fundamental issues in both spheres - private and public. It is a concept that focuses on sustainable development and includes both social, economic and environmental aspects. In

terms of production, it is a model that enables municipalities and companies to manage resources efficiently and become sustainable in the long term. And such a model can also be economically viable. On the one hand, the state can act as an incentive through various incentives, subsidies and support. However, it also plays an important role in creating legislation that should not hinder circular economy models.

Based on this analysis, we decided to start providing consultation, support and information through training and education on environmental projects. The actions described above will also be supported in the next programming period 2021 - 2027 from the Operational Programme Environment, the content of which was influenced by the aforementioned documents ReSAO (chapter 2.2) and RIS3 (chapter 2.4) in the preparation of which RRA PK participated and direct revisions of the programming document in cooperation with the Pardubice Region.

The following action plan targets:

- Support for environmental projects and blue-green infrastructure.
- Education and awareness raising.

3.1 Activities of the Action Plan

3.1.1 Action 1 - Support for municipalities and businesses to develop blue-green infrastructure projects

1) Good practice examples from the project

A total of 55 examples of good practice are shared across the consortium of partners. One of the examples, where RRA PK get the inspiration, is the good practice from Poland (Łódź) called *Use of rainwater in the Regional Fund for Environmental Protection and Water Management*. This is a project that uses retained rainwater from roofs to irrigate green areas. Rainwater is captured and filtered in a 200 m³ concrete tank. The irrigation system is controlled by a control unit and ensures the functionality of the irrigation system using the retained water.

Rainwater retention can contribute to achieving the EU's circular economy goals and adapting to climate change. As this good practice shows, this can lead to measurable water savings and reduced water costs if implemented over large areas.

Such and other actions will be supported in the next programming period 2021 - 2027 from the Operational Program Environment, the content of which was influenced by the mentioned documents ReSAO (Chapter 2.2) and RIS3 (Chapter 2.4), where RRA PK participated in the preparation of it.

2) Action

As part of this action, RRA PK will focus on supporting municipalities and entrepreneurs who will want to implement projects financed from the Operational Program Environment, the Rural Development Program and the planned operational program Operational Program Technology and Applications for Competitiveness. RRA PK will maximally assist municipalities and entrepreneurs in obtaining funding for their projects, plans and development. Everything will depend on the current possibilities that the subsidy policy will allow. These will be projects that will support the meaning of the circular economy and, above all, will support sustainable water management. (completion of wastewater treatment plants, intensification of wastewater treatment plants, completion and modernization of sewers, revitalization of water sources and streams, etc.).

In the 2014–2020 programming period, calls for support for the construction of green roofs on public infrastructure buildings were announced within Priority Axis 1: Improving water quality and reducing the risk of floods, specific objective 1.3: Ensure urban flood protection and rainwater management, of which specific calls included Call No. 119 and Call No. 144. Supported activities included, for example: surface infiltration and retention facilities, storage underground reservoirs for rainwater collection and reuse, etc.

Within these calls, RRA PK has experience in processing a grant application for the project for the city of Česká Třebová - Retention Biotope, which serves to retain and calm rainwater in a specific location in Česká Třebová and for the project Secondary School of Automobile Holice - Rainwater Management.

RRA PK plans to continue this activity in the forthcoming programming period 2021 - 2027, when the preparation of applications for subsequent calls under Priority Axis 1 is planned under the specific objective 1.1 Support for measures in the field of energy efficiency (blue-green infrastructure) and 1.4 Support sustainable water management. The specific calls are not yet

known, as the OPE program documentation for the period 2021 - 2027 is still in preparation. The announcement of the first calls is expected at the beginning of 2022. Among the specific applicants for which the RRA PK will process applications will be some of the partner cities: Pardubice Region, Pardubice, Chrudim, Svitavy, Lanškroun Choceň, Moravská Třebová, Přelouč, Žamberk, Česká Třebová, Hlinsko, Litomyšl. These applicants may also include municipalities with extended powers in the Pardubice Region. It will be mainly about processing the application and consultation on public buildings such as schools, libraries, municipal authorities, etc.

As part of this activity, the political instrument of the OPE was influenced, as described above in Chapters 2.2; 2.3 and 2.4. A specific action will be fully processed applications for subsidies in this political instrument for specific applicants in the Pardubice Region.

Provided services:

- To help with finding calls that correspond to the current needs of a particular company / municipality.
- Definition and consultation of the project plan.
- To ensure the processing of the project application, including mandatory attachments, implementation of tenders.
- Project administration after it has been implemented.

Financial resources within the subsidy funds for potential project plans go to the following areas:

- OP PIK (OPTAK) Energy savings
- PRV (SZIF)
- OPŽP – specific calls in specific objective 1.1 Support for energy efficiency measures (blue-green infrastructure) and 1.4 Support for sustainable water management.

3) Stakeholders and partners

Pardubice region

A group of stakeholders involved in the implementation of the AQUARES project in the Pardubice Region

RRA PK

4) Timeline

2021 - 2023

5) Costs

100 000 CZK/year (0,2 part time per year)

6) Financing

RRA PK

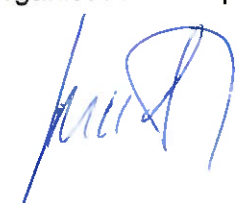

7) Indicators:

2 Application submitted per second phase containing the topic mentioned above

1 Consultations per month

1 Promotion at events for the professional public

Date	08.09.2021
Name	Mgr. Klára Štefančová, RRA PK director
Signature	Organisation stamp  

Date	08.09.2021
Name	Miroslav Krčil, DiS. member of the Regional Council in charge of rural areas, environment and agriculture
Signature	Organisation stamp  

3.1.2 Action 2 – Education, awareness, counseling

1) Good practises examples

Another example that inspires the RRA PK is an example of good practice from Spain (Murcia) called *Education in schools - focusing on the importance of water reuse in the region of Murcia. (School awareness about the importance of sanitation and reuse of urban wastewater in Murcia).*

Recently, there have been increasing reports of declining groundwater levels and droughts in the Czech Republic and Central Europe. The current state of drought can be monitored on the intersucho.cz portal (for the Czech Republic, the Slovak Republic and Central Europe). Experts agree that we need a comprehensive strategy to combat drought. The "Drought Protection Concept for the Territory of the Czech Republic" was approved by the government in July 2017 and was established on the basis of the activities of the VODA-SUCHO (WATER-DROUGHT) Interministerial Commission of a group of employees of the Ministry of Agriculture, the Ministry of the Environment and the T.G. Masaryk. One of the basic things that is necessary to understand the issue is education. One of the basic things that is necessary to understand the issue is education.

Therefore another action that will be implemented within the action plan will focus on spreading awareness and education in the water management field.

2) Action

RRA PK will focus on supporting education and awareness in the environmental projects field with an emphasis on projects related to water reuse and blue-green infrastructure. It will provide consultations and lectures at primary and secondary schools in the Pardubice region, where the emphasis will be on spreading awareness in the efficient and careful use of natural resources, remedying the negative impacts of human activities on the environment, mitigating and adapting to climate change. Effective prevention and circular economy principles.

Firstly, seminars / workshops will take place in the partner cities of RRA PK, it is expected specifically in chosen cities in Pardubice region. These events will be primarily for potential applicants from the Operational Program Environment 2021 - 2027, municipalities, and will focus on public infrastructure. The applicant will learn about the possibilities provided by the

program (policy instrument) and will be provided with information on how to process the application, what to focus on and what to be prepared for the correct application. The result of this activity will be specific prepared applicants within the political instrument of the Operational Program Environment 2021 - 2027, who will be able to implement their projects, the content of which corresponds to the principles of circular economy.

As a second part of activity 2 will be provided education at chosen primary schools in Pardubice Region. It will be based on education of drinking water and wastewater management. Target group for workshops will be students and teachers at primary schools. One workshop will last approximately 45 - 90 minutes. Thematic workshops can be modified to individual demands according to the target group. They will consist of a theoretical part, a practical part and a discussion. Students will learn about the important role of water and tips on how to treat this natural resource.

RRA PK already has an experience with a number of experts in this topic, who can provide the agenda. This is, for example, the EVVO system (Environmental Education, Upbringing and Awareness), which leads to the acquisition of knowledge, skills and habits, the formation of value hierarchy and lifestyle needed to protect the environment in terms of ensuring sustainable development locally and globally. Association H2Ospodař that focuses on education, can provide this service.

3) Stakeholders and partners, primary schools

Primary and secondary schools in the Pardubice region

4) Timeline

2021 – 2023.

5) Costs

50 000 CZK/year (0,1 part time per year)

6) Financing

RRA PK, possible grants

1) Indicators:

2 Events organized per second phase (possibility of online organization)

- 4 Workshops at primary schools in Pardubice regions (possibility of online organization)
6 Summary reports from the organized event

Date	08.09.2021
Name	Mgr. Klára Štefančová, RRA PK director
Signature	Organisation stamp  

Date	08.09.2021
Name	Miroslav Krčil, DiS. member of the Regional Council in charge of rural areas, environment and agriculture
Signature	Organisation stamp  