BIGDATA 4RIVERS
Interreg Europe

Improving the European Rivers Water Quality through Smart Water Management Policies

Action Plan of France

INDEX

LIST OF ABBREVIATIONS

ABBREVIATIONS	
A	
B	
BIGDATA 4RIVERS	Improving the European Rivers Water Quality through Smart Water Management Policies
C	
D	
PA1	Priority Area 1 "Metrology and environmental engineering for the preservation and sustainable management of natural resources"
I	
R	
RCVL	Région Centre-Val de Loire
RSDE	Discharges of Hazardous Substances into Water
S	
RIS3	Regional Innovation Strategy for Smart Specialisation of RCVL

1 PREFACE

Micropollutants are defined as follows: A micropollutant can be defined as an undesirable substance detectable in the environment at very low concentration (microgram per liter or even nanogram per litre). Its presence is, at least in part, due to human activity (industrial processes, agricultural practices or daily activities) and can at these very low concentrations cause negative effects on living organisms due to its toxicity, its persistence and of its bioaccumulation. Many molecules with different chemical properties are concerned (more than 110,000 molecules are listed by European regulations), whether organic or mineral, biodegradable or not, such as plasticizers, detergents, metals, hydrocarbons, pesticides, cosmetics or even medication.

These micropollutants are a major problem for natural environments and are currently difficult to treat. They are part of the national and regional priorities with the implementation of various national plans such as the national plans on micropollutants 2014-2020 and 2021-2027. These are national plans that aim to reduce micropollutant emissions to preserve water quality and biodiversity. Alongside these national plans, there are specific programs for the protection of the environment against pollution, such as the RSDE program (Discharges of Hazardous Substances into Water). This program required the implementation of pollutant analysis campaigns in classified installations for the protection of the environment.

In France, there are also calls for projects such as "Innovations and changes in practice: the fight against micropollutants in urban water" launched jointly by the water agencies, the Ministry of Ecology and the OFB in 2013 to support even more the national system for combating the contamination of aquatic environments by micropollutants. This call for projects selected 13 projects. A network of winners of the call for projects has been set up to promote exchanges between teams and pool methodologies, tools and results. These innovative initiative projects have mobilized local authorities and their local private and/or public partners over 5 years (2014-2019). Among these 13 winning projects was the REGARD project on the reduction and management of urban water in the Bordeaux metropolis. This REGARD project was piloted by the Metropolis of Bordeaux and the coordination and scientific animation provided by SUEZ, a French group and the leading private water supplier in the world. This project therefore aims to characterize the pollution associated with four emission sources (rain, domestic, industrial and hospital) studied in parallel. It makes it possible to propose a hierarchy of risks with regard to the impact of this pollution on the quality of aquatic environments and to test and evaluate actions to reduce the impacts (behavioural, organizational or treatment measures).

Structuring political actions are also carried out at the regional scale, such as the Regional Innovation Strategy for Smart Specialisation of the Centre-Val de Loire (RIS3). The Centre-Val de Loire

Region (RCVL) has put forward 5 Priority Areas including Priority Area 1 (PA1) "Environmental metrology and engineering for the preservation and sustainable management of natural resources".

Our action plan will be in line with the approach undertaken in the REGARD project and in compliance with the objectives of the PA1. It will make it possible to set up a network of municipalities around the theme of the management and reduction of micropollutants in their territories. Indeed, municipalities are major players in water management. Water is a compulsory competence of municipalities. The organization of the distribution of drinking water, the collection and treatment of wastewater and rainwater are the responsibility of the municipalities. The network created will aim to improve the quality of surface water through better management of micropollutants and should allow an improvement of the governance of PA1. It will be coordinated by the cluster DREAM (founding member of the water sector competitiveness cluster, France Water Team), partner of the Big Data 4 Rivers project.

This Action Plan was developed in French and translated into English. The content of this publication is the sole responsibility of its authors. The information and opinions expressed therein do not necessarily reflect the position of the INTERREG Europe programme, which cannot under any circumstances be held responsible.

2 EXECUTIVE SUMMARY

2.1. Introduction

The Big Data 4 Rivers project, aiming to improve the water quality of European rivers through smarter water management policies, consists of 2 phases. The first, from August 2019 to July 2022, focused on exchanges of good practices between the various members of the consortium associated with working sessions. The adaptation and/or transfer to France of one or more good practices presented by the other partners of the project has made it possible to build an action plan specific to the challenges of our territory. The 2nd phase of work extends from August 2022 to July 2023. It will focus on the implementation of the action plan drawn up at the end of the first phase.

The objective of the action plan presented by the DREAM Eau & Milieux cluster is to create a network of municipalities for a better governance of Priority Area 1 in the framework of RCVL RIS3. The network will put a specific effort on the reduction of micropollutants in water. It is inspired by two good Portuguese practices which relate for the first to scientific studies, developments of new technologies and communication on emerging pollutants, of which a certain number of micropollutants are part. The second good practice concerns the establishment and operation of a network of specialists around the theme of water management.

2.2. The Policy Instrument

The policy instrument adressed for the Big Data 4 Rivers project is the Centre-Val de Loire **Regional Innovation Strategy for Smart Specialization – RIS3**. It is directly linked with the Centre-Val de Loire ERDF Operational Program, Axis 1 Knowledge Society, Action 2 “programs and research projetcts in the framework of Priority Areas”. A specific focus is paid on the **Priority Area 1 (PA1) "Environmental metrology and engineering for the preservation and sustainable management of natural resources"** which is one out the five Priority Areas for the Centre-Val de Loire region.

The 2021 – 2027 PA1 action plan includes different key. Among these key objectives, three correspond to the challenges of the BIGDATA4RIVERS project:

- “Defining and implementing integrated natural resource management schemes, which make it possible to sustainably meet the needs of socio-economic sectors”,
- “Promote and develop the management and preservation of resources and environments through innovative solutions with in particular nature-based solutions”,

- "Better take into account the human and social dimension in choices around the challenges of environmental protection and sustainable management of natural resources".

In line with the priorities of the PA1 action plan, the Centre-Val de Loire region supports research actions aiming to reduce micropollutants, whether it concerns substitution, emission reduction or treatment.

2.3. Methodology

The process of interregional exchange of experiences developed between all the partners of the BIGDATA4RIVERS project has been continuously during the whole phase 1 of the project through different actions and animations:

- The study visits allow the partners to understand on site the good practices of the organizing countries;
- The production of deliverables such as different recommendation reports or the joint analytical report about the river basins management plans and policies of participating regions which compiled all the essential information for each partner's participation in this project The two technical knowledge transfer seminars aiming to improve regional knowledge and skills for the implementation of a smart water management in their territories;
- The matching pairs activities, for the exchange of specific information between partners interested in good practices to be adapted in their context;
- The two technical knowledge transfer seminars aiming to improve regional knowledge and skills for the implementation of a smart water management in their territories;
- The creation of a good practices database choice by different partners.

Based on the lessons learned from this project, this Action Plan was developed through a strong collaboration with the Loire Bretagne Water Agency and the other entities represented in the local stakeholder group.

2.4. Vision and Goals

The action plan of the Centre-val de Loire region is presented in the present document. The action plan for a more intelligent management of water resources is inspired by the good practices already implemented by partners of the BIGDATA4RIVERS project.

The objective is to improve the policy instrument addressed within the framework of the BiGDATA4RIVERS project. A network of municipalities will be created for a better governance of the Priority Area 1 – PA1 within the framework of RCVL - RIS3. This network will mainly focus on the management of micropollutants, which are largely managed by municipalities. Two representatives of the network of municipalities will be integrated in the steering committee, thus improving the governance of PA1.

The expected impact of the mobilization of municipalities is to make the politicy instrument more efficient on the issues of preservation and sustainable management of natural resources. This action will also contribute to improve i) the entrepreneurial discovery process and ii) the interaction between industry, academics and local authorities within the framework of the Triple Helix model of innovation.

2.5. Lessons learned

The many exchanges that took place between the partners during phase 1 of the BIGDATA4RIVERS project made it possible to discover many good practices around water management from the different countries of the partners (nearly 40 good practices were added to database of good practices). These exchanges, including study visits and knowledge transfer seminars, enabled the partners to familiarize themselves with water management methods in the various European partner countries. In addition, the writing of the Joint Analytical Report (JAR) has enabled an important transfer of knowledge around water management (political instrument, characteristics of each of the partner regions, etc.).

All of this knowledge has enabled the various partners to establish pairs with them in order to better understand the methodologies of their best practices and to identify their possible transferability. Bilateral meetings were organized and the sessions proved to be very interesting. For the action plan of the DREAM cluster, we have chosen two good Portuguese practices which are:

- “NOR-WATER Emerging pollutants in the waters of Galicia - Northern Portugal: new tools for risk management” (ID 9, Portugal),

Improving the management of micropollutants is the objective of our action plan. Portuguese good practice provides knowledge on the management of micropollutants: scientific studies, implementation of new technologies and communication techniques between the different actors. This last point was of particular interest to us for the creation of our action plan concerning the creation of a network.

- "REDE DOURO VIVO / Reviving Douro Basin - multidisciplinary network of specialists to share experiences and knowledge to be applied in the protection and enhancement of the Douro River" (ID 32, Portugal).

This good practice concerns the creation and animation of a network for a better governance of the policy instrument. We will particularly transpose the functioning of their network to the sharing of experiences and knowledge, the establishment of working groups and the articulation with the improvement of the political instrument.

2.6. List of actions

This action plan will be implemented through a single action with three steps. The objective of this action is to build a network of municipalities for a better governance of the Priority Area 1. To reach the objectives of this action, differents steps will be implemented:

- Step 1: Creation and launch of the network of municipalities,
- Step 2: Exchange of information, sharing of good practices identification of needs for micropollutants reduction,
- Step 3: Integration of the municipalities into the governance of PA1.

2.7. The monitoring process

The monitoring process will be carried out by the DREAM cluster who coordinate the PA1 steering committee and the future network of municipalities.

The DREAM cluster will report to the Centre-Val de Loire region and to the Loire-Bretagne water agency.

2.8. Conclusions and recommendations

The BIGDATA4RIVERS project offers the opportunity to share experiences and good practices between the different European partners in the field of water management. The policy instrument addressed in this project (Centre-Val de Loire Regional Innovation Strategy for Smart Specialisation – RIS3 2021-2027, more specifically Priority Area 1 – PA1 "Environmental metrology and engineering for the preservation and sustainable management of natural resources") relates to regional environmental objectives with a section relating to the management and reduction of micropollutants.

The action plan is based on two good Portuguese practices presented during the BIGDATA4RIVERS

project. Currently, the municipalities are little involved in the PA1 even though they are major players in water management (quality and quantity issues). The objective is to create a network of municipalities in order to improve the governance of the PA1, thus leading to a better water management by reducing micropollutants.

3 ACTION PLAN (MAIN PART)

3.1 General Informations

Project	**BIGDATA4RIVERS**
Partner organisation	Cluster DREAM
Other partners / players involved (if relevant)	Loire-Bretagne Water agency and municipalities
Country	France
NUTS2 region	Région Centre Val de Loire
Contact person	Justine Négrel
Email address	justine.negrel@poledream.org
Phone number	+33 7 87 81 73 15

3.2 Policy Context

The Action Plan aims to impact:	x	Investment for Growth and Jobs programme
	□	European Territorial Cooperation programme
	□	Other regional development policy instrument
Name of the policy instrument addressed:	Centre-Val de Loire Regional Innovation Strategy for Smart Specialisation – RIS3 2021-2027, more specifically Priority Area 1 – PA1 "Environmental metrology and engineering for the preservation and sustainable management of natural resources"	

3.3 Details of the action envisaged

Action: Creation of a network of municipalities for a better governance of Priority Area 1

a) The Background

The **Priority Area 1 – PA1 "Metrology and environmental engineering for the preservation and sustainable management of natural resources"** within the framework of the Centre-Val de Loire **RIS3** aims to mobilize the actors of the Centre-Val de Loire region – RCVL around the challenges of ecological transition. A PA1 action plan has been drawn up in 2020 for the 2021-2027 period.

The **governance of PA1** mobilizes a steering committee composed of private companies, public organizations, education and training, research organizations. A weakness is that the municipalities are little involved although they are key actors in the ecological transition.

Thus, the general objective of the action is to create a **network of municipalities** to increase their involvement in the **governance of the PA1** by **appointting two representatives** within the steering committee, so that the objectives of the PA1 action plan will be achieved.

The **reduction of micropollutants** is one of the key objectives of the 2021 – 2027 PA1 action plan in the Centre-Val de Loire Region, whether it is a question of reducing them at source or eliminating them at the level of wastewater treatment plants. It is part of the objectives of ecological transition. It can generate employment and economic development for businesses in our region through innovative solutions. This overall objective can only be achieved with a strong mobilization of the municipalities which i) are partly responsible for the management of micropollutants and therefore guarantee the quality of the environments on their territories, ii) contribute to innovation through a public order innovative. **That is the reason why the issue of micropollutant reduction will be the priority of the network of municipalities**.

Two Portuguese **good practices** of the BIGDATA4RIVERS project caught our attention to write this action plan. The first good practice named “REDE DOURO VIVO / Reviving Douro Basin - multidisciplinary network of specialists to share experiences and knowledge to be applied in the protection and enhancement of the Douro River” (ID 32), concerns the creation of a network of scientists , environmentalists, conservationists and experts to improve the protection of the Douro River. The second good practice, named “NOR-WATER Emerging pollutants in the waters of Galicia - Northern Portugal: new tools for risk management” (ID 9) concerns a European research project on emerging pollutants and micropollutants: the communication plan of the project will be used for communication within the network.

b) ***Action***

The objective of the proposed action is to create a **network of municipalities for a better governance of Priority Area 1 in the framework of RCVL RIS3**. The network will put a specific effort on the **reduction of micropollutants** in water. Two representatives of the network will be appointed to participate in the **PA1 Steering Committee**.

The expected benefits are as follows:

- To mobilize municipalities so that they actively contribute to the achievement of PA1 objectives, namely micropollutants reduction;
- To have a good vision and a follow-up of the actions implemented by the municipalities to reduce micropollutants;
- To identify i) the problems that they are facing which could impede the achievement of PA1 objectives, in the present case micropollutants reduction, and ii) their needs based on a good vision of societal needs;
- To take into account the needs of municipalities to improve the PA1 action plan

The action is composed of three successive stages:

❖ **Step 1: Creation and launch of the network of municipalities**

The objective of this first step is to create, contract and launch the network of municipalities in the Centre-Val de Loire Region.

- Network presentation webinar (June 2022),

The aim of this webinar is to present the future network to municipalities: scope, objectives, contribution to PA1 action plan and governance, expected benefits. General information such as the structure and the general objectives of the Région Centre-Val de Loire Regional Innovation Strategy for Smart Specialisation – RIS3 2021-2027 will be delivered. The scope of the Priority Area 1 “Metrology and environmental engineering for the preservation and sustainable management of natural resources” and the objectives of the action plan 2021-2027 with a specific focus on micropollutants reduction will be presented.

This webinar will be held at the end of June 2022 to allow the network to be launched in September.

The contractualization of the network with the municipalities will be put in place between June and September 2022. A person will be hired to lead and coordinate the network.

- Kick off meeting

This is the launch meeting of the network which will bring together all the actors and funders. It will take place between September and October 2022.

❖ **Step 2: Exchange of information, sharing of good practices, identification of needs for micropollutants reduction**

The priority objective is that municipalities can share their experience for the reduction of micropollutants, identify the difficulties they encounter, express their needs by specifying their nature (technical, financial, regulatory, etc.).

The network activities will include plenary meetings, specific webinars, dedicated work groups... In case of need, an information platform (FAQ) will be proposed; the platform will include technological, financial and regulatory sections.

The outputs of the network will be taken into account in the subsequent stage to monitor and to improve the action plan of the PA1.

❖ **Step 3: Integration of the municipalities into the governance of PA1**

This last step concerns the integration of two representatives of the municipalities within the PA1 steering committee. They will have to be appointed by the President of the Region Centre-Val de Loire Council.

The municipalities will thus be able i) to report on their effective contribution to the achievement of PA1 objectives (in this case, reduction of micropollutants), ii) to present their difficulties and needs and iii) to propose improvements and modifications of the PA1 action plan.

The long-term objective is to generalize the involvement of municipalities for all the topics and objectives of PA1, thus making it possible to better take into account societal needs in the governance of PA1.

c) Players involved

- **Municipalities**

They are the beneficiaries of this action. About 200 municipalities, identified by the Loire-Bretagne water agency, will be approached. The objective is to effectively mobilize 50 municipalities.

- **Loire-Bretagne water agency**

The Loire-Bretagne water agency participates in the implementation of national and European water policies. Its mission is to provide elected officials and water users, in collaboration with the services of the State, with an overview of the problems related to water management and the financial means enabling them to combat pollution, manage and preserve water resources and aquatic environments.

The water agency helps communities, economic and agricultural actors to keep enough water and improve its quality.

- **Cluster DREAM**

The role of the DREAM Cluster is to coordinate this action plan and monitor it.

The DREAM cluster is also the coordinator of the PA1 steering committee within the framework of RIS3. Thus the actions of the network of municipalities will be well integrated into the management of the PA1 and brought to the attention of the conomic actors.

d) Timeframe

The action plan runs from June 2022 to July 2023.

STEP	TITLE	TIMEFRAME
STEP 1	Creation and launch of the network of municipalities	June 2022 – October 2022
STEP 2	Exchange of information, sharing of good practices, identification of needs for micropollutants reduction	October 2022 – July 2023
STEP 3	Integration of the municipalities into the governance of PA1 – RIS3 (steering committeee)	January 2023 – July 2023

e) Costs

The budget for this action plan is estimated at around 90,000 euros corresponding to the staff costs (coordination and link with the steering committee of PA1 – RIS3 ; coordination of the network of municipalities) and the external cost related to the various events planned (webinar, meetings, website, etc.).

f) Funding sources

This action plan is funded by:

- 6% by the Centre-Val de Loire Region, PA1 steering committee coordination ;

- 47% by the Loire Bretagne water agency ;

  47% by the municipalities involved in the network.

g) Impact expected

The policy instrument adressed for the Big Data 4 Rivers project is the Centre-Val de Loire Regional Innovation Strategy for Smart Specialization – RIS3, more specifically Priority Area 1 – PA1 "Environmental metrology and engineering for the preservation and sustainable management of natural resources".

The reduction of micropollutants is a top priority of the PA1. It is part of the objectives of ecological transition. It can generate employment and economic development for businesses in our region through innovative solutions. This overall objective can only be achieved with a strong mobilization of the municipalities which i) are partly responsible for the management of micropollutants and therefore guarantee the quality of the environments on their territories, ii) contribute to innovation through a public order innovative.

The expected impact of the **mobilization of municipalities for a better governance of Priority Area 1** (participation in the steering committee) is to make the politicy instrument more effective on the issues of preservation and sustainable management of natural resources: i) identification and monitoring of the actions implemented by the municipalities to reduce micropollutants, ii) identification of the problems that they are facing which could impede the achievement of PA1 objectives regarding micropollutants reduction, iii) identification of their needs of support to be more efficient and iv) finally, **improvement of the PA1 action plan**.

This action based on an increased participation of municipalities will also contribute to improve i) the entrepreneurial discovery process and ii) the interaction between industry, academics and local authorities within the framework of the Triple Helix model of innovation.

Date:
Signature:
Stamp of the organisation (if available):