

THE AREA



Vienne River

- Rural/agricultural area
- Total area of 21,157 km²
- Implementation of NBS at 7 sites
- Atlantic biogeographical region

Grand Est

- Agricultural and industrial area
- Total area of 57,441 km²
- Continental biogeographical region

ABOUT NATALIE

NATALIE is an **European Union research project** contributing to the objectives of the **EU mission "Adaptation to Climate Change"**, aiming to empower at least 150 regions and local communities to become climate resilient by 2030.

To achieve our technical, financial, legal and social objectives, we are a consortium of **43 partners** committed for **5 years** to the common goal of accelerating the adoption of **Nature-based Solutions (NBS) across Europe**.

8 CASE STUDIES

18 NBS are being implemented, monitored and their performance assessed in 8 demonstration sites covering 6 different biogeographical regions of Europe. All these sites have different context and are facing different climatic challenges. The potential of replication of these solutions will be studied in 4 "follower sites".

THE NATALIE PROJECT



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AQUATIC SYSTEM RESTORATION AND WATER MANAGEMENT

FRANCE



Vienne River

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Grand Est

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INVOLVED PARTNERS



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DEALING WITH CLIMATE CHANGE CHALLENGES

Vienne River

- Increase of 1.86°C in 65 years
- Increased evaporation
- Reduced flow rates
- Threat to water safety
- Impact on flora and fauna



OBJECTIVES

- * Implement 2 types of NBS to restore river ecosystems
- * Monitor NBS's impacts on watercourses and biodiversity



HOW WILL THIS WORK?

- Removal of artificial water bodies (ponds) in the bed of watercourses
- Removal of drains in wetlands

Strengthening region's resilience by restoring degraded aquatic environments.

Grand Est

- Increase in average temperatures
- Impact on flora and fauna
- Urban heat islands
- Increased risk of flooding
- Pollution and reduced water quality
- Impacts on agriculture and forestry



OBJECTIVES

- * Create a community of practice for NBS at regional level
- * Mobilise innovative sources of funding, including private finance

What are Nature-based Solutions (NBS)?

Ever wondered how nature can help us tackle climate change?

NBS are "**Solutions inspired and supported by nature**, which are cost-effective, simultaneously provide **environmental, social and economic benefits** and help build resilience."

(European Commission, 2015)

About 24,500 artificial ponds in Vienne basin

In France, some ponds are larger than 500 m² and ranging in depth from one to few meters. Most of these ponds are artificial and strictly ornamental.

In the Vienne River basin, ponds have been developed by creating multiple dams on the watercourses, breaking their continuity, and preventing wildlife and sediments from passing through normally. They are also a major source of evaporation during the summer months, reducing flows or causing dry streams.



What about drained wetlands?

In the Vienne River basin, ditches or underground pipes are used to drain wetlands in order to plant coniferous trees, cultivate the land or feed livestock.. These drained wetlands can no longer ensure their ecological functions, including their hydrological functions, which leads to water flow problems.