

LIFE PHOENIX
Perfluorinated compounds HOListic ENvironmental Interinstitutional
eXperience
LIFE16 ENV/IT/000488

1. LIFE PHOENIX: OBJECTIVES AND EXPECTED RESULTS

The Project LIFE16/ENV/IT/000488 PHOENIX “Perfluorinated compounds Holistic ENvironmental Interinstitutional eXperience” (**LIFE PHOENIX**) has been admitted for funding by European Commission and is getting to the heart with its actions. The preliminary activities started in September 2017 and the project will finish in August 2020. The project has Regione del Veneto (Social-Health Area) as coordinating beneficiary, while Regional Environmental Prevention and Protection Agency of Veneto (ARPAV), Water Research Institute of the Italian National Research Council (CNR-IRSA) and Università degli Studi di Padova (Department of Biology and Department of Industrial Engineering) as associated beneficiaries.

LIFE PHOENIX aims at demonstrating how a new inter-institutional governance system, supported by innovative forecast tools and targeted mitigation strategies, is able to manage more effectively and efficiently risks related to the contamination of waters by persistent mobile organic contaminants (acronym PMOC). This system will help avoiding or at least reduce public spending incurred on damages caused by the contamination from emerging substances pollutants, which represents a big threat for citizens’ health. The focus of this specific project is on short-chain PerFluorinated Alkyl Substances (short-chain PFAS), as sub class of PMOC, in particular as contaminant of drinking waters and for agriculture purposes.

The specific project objectives include:

- Settling a Permanent Regional Commission for emergencies supported by a Multidisciplinary Experts’ Panel to implement policy measures and actions to prevent or limit problems related to contamination from PMOC in general, PFAS into the specific.
- Preparing guidelines and ready-to-use protocols on how to face the problems related to contamination from PMOC and risk prevention, including a work plan action.

- Providing well-timed and innovative environmental tools for the estimation of PMOC distribution and risks (early-warning tools) based on a thorough and multidisciplinary data collection that will provide datasets and analyses to support on-going monitoring and risk assessment.
- Proposing mitigation strategies based on innovative technological (drinking water) and natural solutions (irrigation water).
- Transferring the project approach and solutions to other European geographical contexts characterised by episodes of similar environmental contamination and the reproducibility of the methodology.
- Raising awareness of population and stakeholders on the importance of water quality preservation.

The financial contribution for European Union under the Programme LIFE consists on 60 % of the eligible budget, while the remaining 40 % is made up by costs of personnel directly involved in the projects. In this specific case, the total budget is **2.176.493,00 euro**, the total eligible budget of 2.107.283,00 euro with a EU financial contribution requested of 1.264.369,00 euro.

2. LIFE PHOENIX: ACTIONS AND MEANS INVOLVED

This project will develop a set of institutional procedures to assess and possibly prevent as well as respond to risks for environment and human health with the contribution of multidisciplinary specialists. They will develop protocols, tools, guidelines and indications to assist policy-makers in taking decisions and implementing effective prevention measures for environment, human health and the socio-economic context. All project activities will focus on a real scale case constituted by the PFAS pollution in the provinces of Vicenza, Verona and Padova (approx. 930 km²) in the Veneto Region (North-East of Italy).

The procedures will regard the setup of an inter-institutional system that will control and manage all problems (**Action B.1**) through expert groups that will analyse and translate all information contained and generated by an informative and statistic system and by a Permanent Regional Commission. The action will draft guidelines to control and manage issues related to contamination as well as risk prevention and definition of a work plan action during and after the contamination by

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presence of PMOC. The project results will be available and ready-transferable on other European areas interested by similar contamination by PMOC.

The informative-statistic system will integrate various database (**Action B.2**) from local, regional and national institutions making data ready available in a web portal organised in several thematic areas and facilitating data retrieval to different uses for their technical and scientific reporting, which is needed by regional interdisciplinary working groups.

In the meantime in **Action B.3**, the LIFE PHOENIX will validate and compare some innovative technological tools for the mitigation of the involved contaminants (in this specific case short-chain PFAS) in the water through pilot plants adopting different technics for the purification of drinking water (physico-chemical breakdown systems based on filters) and irrigation water (phytodepuration in wetland systems).

The last concrete action will realise innovative and integrated forecast tools to support decision-making (**Action B.4**) that will estimate and predict diffusion in the environmental matrices of the contaminants and setup biological and eco-toxicological systems of early-warnings, to support and improve risk management by policy makers and relevant authorities.

Finally, also two specific actions of communication and dissemination of LIFE PHOENIX and its results has been planned, one technical-scientific addressed to stakeholders and another one non-technical for a more general audience. This second action draw the attention on schools and educational districts raising the awareness on water resource as “valuable good”.

3. FIRST PLANNED MEETINGS

The official **Kick-Off Meeting** of LIFE PHOENIX took place on 23rd October 2017 at Palazzo Linetti of Regione Veneto, in Venice. During the meeting between specialists and delegates of the partner involved, the first activities of the LIFE PHOENIX were explained and shared with the stakeholders directly involved (e.g. Prevention Departments of Local Health Authorities, Land Reclamation and Drainage Authorities, Integrated Water Services, Research Institutes) as requested by the EU.

Before this event, the European Commission and the Executive Agency for Small and Medium-size Enterprises (EASME) have invited a delegation of Project LIFE PHOENIX for a introductory kick-off meeting. During the meeting, held on the 17th and 18th of October 2017 in Brussels it has been provided to the beneficiaries rules, roles and responsibilities, policy matter on financial issues and modality to interact with EASME underlining the role of the external monitoring team. Then, the meeting was the occasion to start an action of networking between beneficiaries of different LIFE Projects but involved in the common sectors/matter.

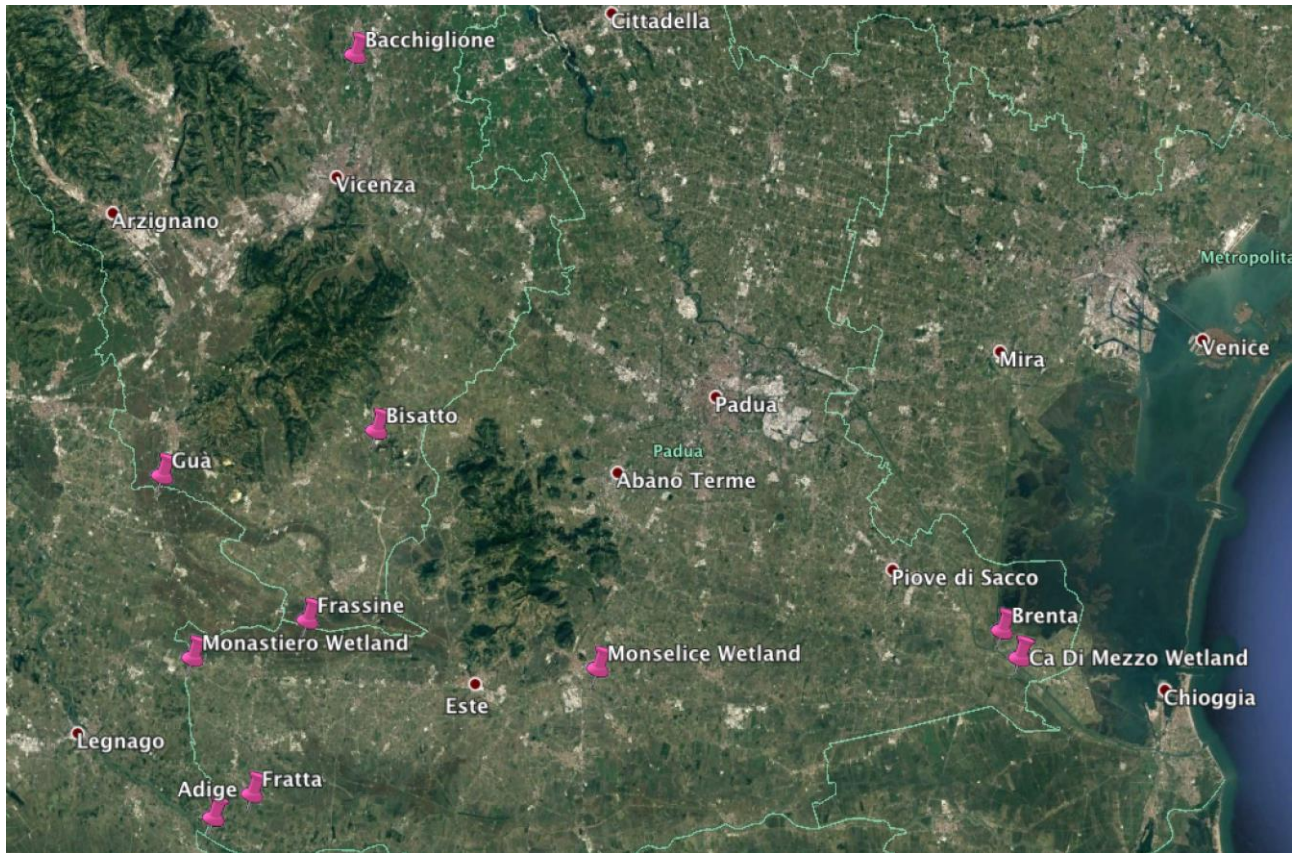
Finally, on the 12 March 2018 was planned the first meeting between the external monitoring team and a delegation of technical and financial personnel involved in LIFE PHOENIX. The aim was a first meeting to check the beginning of the activities and on operative details and issues encountered.

4. ENVIRONMENTAL MONITORING ACTION OF LIFE PHOENIX PROJECT

In the frame work of the LIFE PHOENIX project has been created a sampling point network on different matrixes; this will provide us information related to different concentrations of PerFluorinated Alkyl Substances (PFAS) within the project area. The different matrixes will be four:

- Water
- Soil
- Plants
- Animals

Sampling campaign will be carried out continuously for 24 months with different sampling frequency depending on the different matrixes. We have identified 10 different sampling points within the province of Vicenza, Verona and Padova, to have the best characterization possible within project area.



Map of Sampling Points

5. VISUAL IDENTITY OF LIFE PHOENIX PROJECT

An effective action of communication and dissemination is essential to guarantee decisions of prevention and protection of the water resource. This action will be supported by experts and specialists in communication and broadcasting. Part of the educational program is targeted to student of the middle schools involving them through the production of videos, media materials, publications under the supervision of the experts.

Also for the visual identity there was an effort with the aim to represent at best the idea of team working and at the same time give coherence of the communication impact of the project. Hence, the logo of the project was developed in different phases.



Development of the PHOENIX logo

For the logo the starting point was the acronym “PHOENIX”. The image of **phoenix** represents the myth of the fire bird, as represented in the classical iconography, but at the same time a bird that is rising from water, as in the Egyptian mythology with the theme of the water and its preservation as core of the project. The graphical choice was addressed on the synthesis of these two elements, merging in a single figure the drop of water and the mythological animal. The animal, represented by the head and the two big wings that surrounded the water drop in a kind of protective hug. Finally, a double interpretation of the logo is possible according to the size: if the symbol is big the wingspan of the bird that protects the water is perceived, if it is small only the drop is visible, allowing an immediate recognisability on the scope of this project.



The double interpretation of the PHOENIX logo