

# VERBATIM - Automated Biodiversity Monitoring Service

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**Year of commitment** : 2018

**Address 1 - street** : SEDIF, 8/10 RUE DU DOCTEUR SCHAPIRA, 93330 NEUILLY-SUR-MARNE, France

**Diameter** : 1000000

**Digital services** : Smart metering

**Biodiversity & Ecosystems** : / Urban Farming, Urban Microfarm, Green and blue corridor, Ecoducs, Buffer zone, Ecosystem restauration, Ecosystems preservation /



18 990 €

**Builder**  
2EI Veolia

**Manager / Dealer**  
Veolia Eau d'Ile-de-France

## GENERAL INFORMATION

**SEDIF** (Syndicat des Eaux in Ile-de-France) wanted to measure the impacts of its biodiversity policies on its drinking water production sites.

For that he ordered **VERBATIM** at **2EI Veolia**.

**VERBATIM** is an automated monitoring service for biodiversity based on an **infrastructure of autonomous and communicating sensors** that listens to the activity of bats and deduces the health of ecosystems.

The sensors are positioned according to the measures to be carried out in order to verify the scope of development or biodiversity policies such as the effects on the ecosystem of the establishment of flowered meadows or the realization of an inventory of fixtures on the impact of light pollution generated by lighting.

The Neuilly sur Marne facility is the first in a series of three for SEDIF. The next two are in the process of being set up. The entire sensor network will be operational by the end of June 2019.

VERBATIM is the result of a collaboration between 2EI Veolia and the **National Museum of Natural History** which brings its undeniable knowledge and expertise.

Other VERBATIM sensor network programs have already been implemented in 2018, notably to [measure the effects of a change in public](#)

## Progress Status

Delivered

## Data Reliability

Self-declared

## Funding Type

Private

## Sustainable Development

Attractiveness :

A measuring device such as **VERBATIM** to demonstrate the exemplarity of a construction, a development, a policy on biodiversity, makes it obviously more attractive.

This automated tracking service is a world first.

Well Being :

What's more enjoyable than an environment in which biodiversity expresses itself.

What is more reassuring than being able to show the real effects of the measures taken.

**VERBATIM** allows it.

Preservation / Environmental Improvement :

The infrastructure itself is designed to measure and preserve biodiversity. It enables local authorities, industrialists and other clients, developers, developers and managers of natural areas to objectively and objectively satisfy and control their environmental obligations and ambitions for an inventory, a detailed analysis of projects or contribute in a coordinated with the steering of an environmental strategy.

## Testimony / Feedback

*"Certified ISO 14001 since 2002, the **SEDIF** is committed to biodiversity through actions to preserve and promote it on all its assets spread over 150 municipalities of Ile-de-France, which it ensures the supply of drinking water.*

*With a view to continuous improvement, the assessment of the impacts of the actions carried out is essential to assess their effectiveness. Thus, bioindicators have been developed and implemented. The monitoring done to date shows that the SEDIF sites are refuges, while remaining under the influence of their environment. The 2018 - early 2019 deployment of the Verbatim solution at SEDIF's three main drinking water production sites must then contribute to improving this system for evaluating the actions carried out there. At the crossroads of life sciences and technology, this approach contributes to SEDIF's ambition for an efficient and innovative public drinking water service. "*

*For the President and by delegation,  
Philippe Knusmann, Director General of Services*

## Governance

Union of Waters of Île-de-France

2EI Veolia

Veolia Eau d'Ile-de-France

Manager / Dealer Type : Private

## Sustainable Solutions

VERBATIM

Description :

Biodiversity is in danger. Climate change, overexploitation of resources and intensification in agrosystems, air, soil and water pollution, habitat destruction and the introduction of invasive species that supplant local species are the five major causes.

2EI Veolia is committed to offering solutions to preserve and restore biodiversity.

VERBATIM relies on the analysis and interpretation of the sound and ultrasound environment; in particular, bats are a powerful indicator of ecosystem health. Sensitive to the evolution of their environment and placed at the top of the food chain, they allow deductions on the state of fauna and flora. Bats combine all the assets: great longevity, present everywhere and attached to their territory. Species community analysis provides information on light pollution, the quality of tree cover, the quality of surface water, the insect productivity of an ecosystem; more broadly the health status of ecosystems. Other biological groups such as birds and amphibians can be very good indicators depending on the circumstances, their inclusion in the system is programmed to start with locusts in 2019.

This is the undisputed expertise of the National Museum of Natural History, based on extensive databases and associated with Veolia, the number 1 environmental services that can pull this essential information.

VERBATIM is the first automated solution of this type. It is changing quality standards towards a better consideration of biodiversity.

The infrastructure is based on the deployment of a network of sensors that combines the technical performance of energy autonomy, data transmission and automated identification, remotely controllable and for which 2EI Veolia has made the choice of a French made.



Addressed to communities, developers and developers as well as industrial and infrastructure operators, VERBATIM is a solution now proven in the field. It enables them to objectively and objectively meet their environmental obligations and ambitions for an inventory, a detailed analysis of projects or to contribute in a coordinated way to the management of an environmental strategy. At your service, it is implemented by the experts of the Museum and Veolia: Doctors in ecology, acoustics and bats specialists, engineers ...

- Smart city :
- Biodiversity :
- Urban project governance
- Infrastructure
- Digital services
- Citizen-awareness
- Management of natural areas
- Environmental charter
- Urban Lighting

Company (es) Website :

## Contest

Building candidate in the category



Grand Prix Infrastructure Durable



Prix du public

