Press Release
Paris, January 30, 2024

AEROPHILTER,
a new urban furniture to purify outdoor air installed at the Athletes' Village by Aérophile and SOLIDEO

The French SME AEROPHILE has developed an innovative system for capturing fine particulates (PM2.5) adapted to open spaces, called Para-PM, which has been successfully tested for a few months.
Based on an ionization and electrostatic filtration process, this technology was chosen by SOLIDEO (Société de Livraison des Ouvrages Olympiques) to purify the air at the Athletes' Village. It has been integrated into original urban furniture, in the form of large canopies, to ensure a high flow of clean air.
The implementation of this innovation aligns with SOLIDEO's ambition to prefigure the European city of 2030 by developing new solutions for comfortable urban living.

- **An innovative solution to purify the air in large spaces**

Air quality is a major issue for Paris and the Petite Couronne. Analyses of pollution levels in the city of Paris, measured by various sensors between 2018 and 2023, show that Parisians are exposed to fine particulates (PM2.5) exceeding the **daily threshold set by the WHO** (15 µg/m3) **for about 130 days a year** (more than 1/3 of the year).

As part of its innovation program, SOLIDEO selected, through a competitive dialogue procedure, the Para-PM technology developed by engineers from the SME AEROPHILE after 10 years of R&D conducted at the **Ballon de Paris Generali**. It is a **unique system for capturing fine particles in large volumes** for open or semi-open spaces, based on an innovative patented ionization and electrostatic filtration process.

The system purifies the **air intake by over 95% of its PM10, PM2.5, and even down to PM 0.1, which are the most harmful to health**. Additionally, thanks to a special filter, the system **also helps reduce ozone pollution**. It is environmentally friendly due to its low power consumption and generates no waste since, through its innovative electrostatic filtration process, it does not use any consumables. It is also **customizable and adaptable** to various locations where air pollution is a major concern: subways, tunnels, construction sites, as well as schools, sports facilities, hospitals, and nursing homes.

- **Pure air fountains installed at the Athlethes' Village**

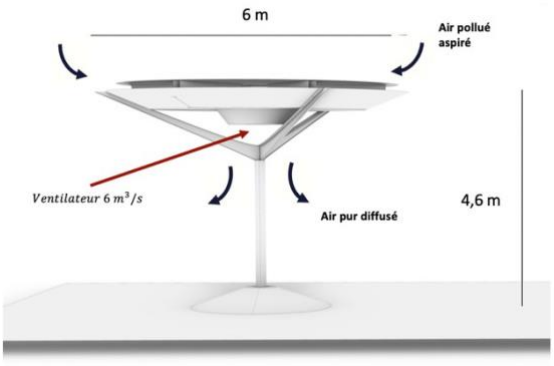
To meet the specifications of SOLIDEO and achieve the decontamination of a large area located not far from the A86 highway traffic, the Para-PM technology has been integrated into giant canopies measuring 4.6 or 5.6 meters high and 6 meters in diameter, named AEROPHILTRES.

- **5 canopies** include 6 Para-PM modules, totaling 30 Para-PM units,
- **2 others c**omplete the setup to finish landscaping the area and provide shade for the public.

The adaptation of the Para-PM technology into AEROPHILTRE was carried out with the assistance of the TER agency, responsible for the development of all public spaces on behalf of SOLIDEO, and the engineers/architects from DVVD on behalf of AEROPHILE.

Like giant fountains of pure air, these canopies will distribute a volume **of 108,000 m3 to the public at the Athletes' Village, equivalent to about forty Olympic swimming pools of clean air per hour!**

AEROPHILE aims for a **95% decontamination of its fine particles[1*] at the outlet of the devices.** To precisely measure the effectiveness across the entire area, a protocol has been established by AirParif and will be implemented soon.



In addition to extracting pollution from vast volumes of air, these AEROPHILTRES offer several other advantages: they consume very little energy (1kW, equivalent to a refrigerator), require minimal maintenance (annual cleaning is sufficient), and serve as shading during the day and public lighting in the evening.

To further optimize their operation and energy consumption, the AEROPHILTRES are connected to an information system that allows automatic activation **based on meteorological conditions, air pollution levels, and the attendance at the Athletes' Village.**

These AEROPHILTRES are permanently established on the site and will continue to provide cleaner air for future residents.

- **An innovation that aligns with SOLIDEO's ambitions**

The objective of SOLIDEO is to design the city of tomorrow, a city where it is good to live, despite climate change or recurring pollution. It is also a more modest city, consuming less water, less energy, renewable energy as much as possible.

[1*] *Validated by two independent measurement systems (an optical counter and a condensation nucleus counter) and numerical simulation models.*

It is a city where employees and residents, young and old, owners and tenants mix. It is ultimately a city accessible to all.

To imagine this city, SOLIDEO has set strong and unprecedented ambitions for all project owners and stakeholders. To encourage French companies in this approach, it has promoted innovation through various means, including its innovation fund, which has subsidized certain projects. Specifically, it aims to give project leaders the opportunity to test solutions on a large scale that will be replicable in other development projects thereafter.

In this context, it collaborated with AEROPHILE to establish its outdoor air purifiers on a large scale.

Antoine Du Souich, Director of Strategy et Innovation at SOLIDEO and President of its Innovation Committee, stated : « *Trough our innovation and ecology fund, we wanted to provide the necessary boost for a project to become a reality or to scale it up, make it accessible on a large scale. SOLIDEO is delighted to implement, at the Athletes' Village, the solution developed by AEROPHILE, which will allow everyone, during episodes of fine particle pollution, to exercise, walk, or relax in the shade of AEROPHILTRES in purified air. We hope that, based on this experience, AEROPHILE will further develop its offering to make it accessible to a larger audience, for a healthier and more pleasant city to live in.*»

« *We are proud to install these AEROPHILTRES in a location as prestigious as the Athletes' Village. The stakes are high because today everyone knows that fine particles are dangerous to health, especially for the most vulnerable, such as young children, the elderly, asthmatics, etc. They are also very harmful during sports activities. Our AEROPHILTRES will allow athletes to breathe air that meets the WHO recommendations. Over the next 5 months of experimentation before July, our goal is to further optimize their effectiveness, especially during more significant pollution episodes.*», explains **Matthieu Gobbi, co-founder of Aérophile.**

Added video link (currently in process)
More information on : http://parapm.org/

About AEROPHILE

Founded in 1993 by Jérôme GIACOMONI and Matthieu GOBBI, graduates of the prestigious engineering schools Polytechnique and Les Ponts, the AEROPHILE group designs, manufactures, sells, and operates attractions for the general public, including large captive balloons and Aérobars. It operates seven balloons directly, including the Generali Paris Balloon and an amusement park, the Parc du Petit Prince, located in Alsace between Mulhouse and Colmar.

Since its inception, AEROPHILE has been the global leader in captive balloons, with 120 balloons sold in 40 countries and over 12 million passengers transported.

After 10 years of research and development, in 2021, the two engineers developed a major innovation: the Para-PM, an innovative system for purifying outdoor air from fine particles.

More information on www.aerophile.com

About SOLIDEO

SOLIDEO oversees the delivery and completion of more than 60 construction projects and development operations necessary for the organization of the Paris 2024 Games, within a defined budget and with an ambitious, sustainable, and exemplary legacy. These projects are envisioned and designed to be repurposed in 2025 into facilities, housing, and offices.

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