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GENERALI BALLON OF PARIS

PRESS RELEASE

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The Ballon Generali, a lasting story between Paris, its inhabitants, and its visitors.

Located in Parc André Citroën in Paris since 1999, the Ballon Generali has become a landmark in its own right: **the third highest point in Paris, visible up to 20 km around**, it carries **60,000 visitors each year**, attracted by the exceptional view of Paris visible from the gondola when it rises **to 150 m above the ground**.

Today, the Ballon Generali holds the record for the **lightest-than-air aircraft that has carried the largest number** of people worldwide with nearly 1.5 million passengers in total.

From the beginning, the creators of the Ballon Generali, **Jérôme Giaccomoni and Matthieu Gobbi**, co-founders of **Aérophile** company, wished to make the balloon more than just a tourist attraction! Its helium-filled envelope and electric winch, which consumes no more energy than an elevator, make it the **least polluting aircraft in the world**.

A true ecological showcase, the Ballon Generali has continuously affirmed its environmental mission since its creation.

This approach has convinced major partners of the project: first and foremost, the **City of Paris**, which grants the allocated land, and several partners who have come together to support the operation: **Generali, Airparif, CNRS, and ASEF (Association Santé Environnement France)**.



Le Ballon Generali est situé à seulement deux kilomètres de l'aire de décollage de la montgolfière de Pilâtre de Rozier, premier homme à avoir volé par ses propres moyens en 1783.



THE GENERALI BALLON IN PRACTISE

The Ballon Generali flies every day when the weather permits and can carry **up to 30 passengers at a time.**

Opening hours : every day from 9 am until 30 minutes before the park closes.

Location : Parc André Citroën 75015 Paris,

Metro stations : Javel ou Balard /
RER C Javel ou Boulevard Victor

Prices :

- o Adults : 15 €
- o 3-11 years old : 8 €
- o Under 3 years old : Free

Visitors with disabilities

Adult : 11,50 €

Child : 6 €

Free for young Parisians under 12 years old upon presentation of proof of address and age. One paying adult can accompany a maximum of 2 free children.

Please Note :

To ensure you can fly, it is advisable to check the website ballondeparis.com before heading out.

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Particles in the air

Particle matter (PM10) with a diameter smaller than 10 μm , which is 7 times finer than the thickness of a hair.

Fine particulate matter (PM2.5) with a diameter smaller than 2.5 μm .

The **very fine particulate matter (or PM1)** with a

diameter smaller than 1 μm .

LABORATORY ABOVE PARIS

Since 2013, the Ballon Generali has been measuring particles present in the ambient air.

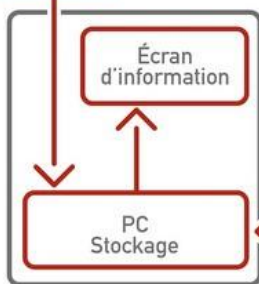
The Ballon Generali is the first urban and flying laboratory that allows for precise real-time study around the clock, from the ground up to 150 meters in altitude (and even 300 meters when weather permits), of the particles matter in the air.

This performance is achieved thanks to the **LOAC (Light Optical Aerosol Counter)**, which is carried on board the balloon.

This device, developed **in partnership with CNRS**, is the first capable of **both counting particles ranging from 10 micrometers to 200 nanometers in diameter** (the most dangerous ones) present in the air, and providing information on their size and nature based on altitude.

LOAC : Capteur de particules

LOAC 2 Captation de particules au sol.

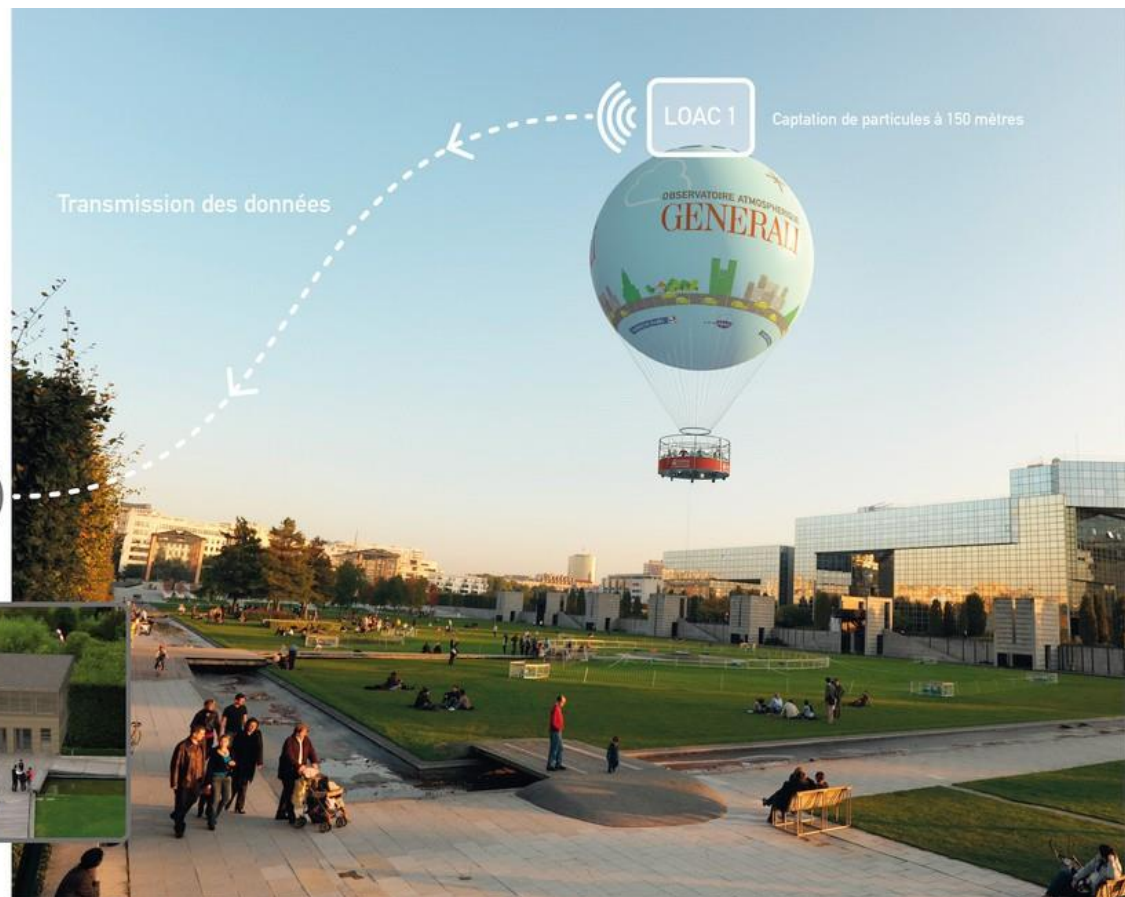


BILLETTERIE (au pied du ballon)

Présentation au public en temps réel:

- de la concentration en aérosols en fonction de l'altitude (0 - 150 m)
- de l'évolution de la concentration en aérosols au cours du temps au sol et en vol (variabilité sur plusieurs jours)
- de la nature principale des aérosols (suies, sables, gouttelettes)

Panneaux d'information sur la pollution et les aérosols



Since 2018, measuring instruments have been incorporated into the current system to study in real-time, ozone, another major air pollutant.

Regularly, experiments are conducted aboard the balloon with French or foreign laboratories, such as the LIDAR technology, a technique that provides a 3D mapping of fine particles in the Paris sky, or the setup of sensors to measure various gases like CO₂, NO₂, NO, etc.

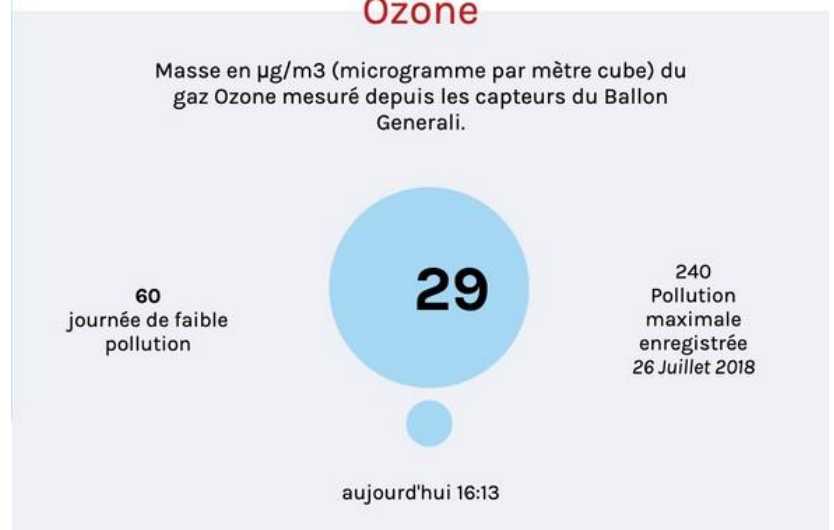
A new monitoring program will be conducted to measure the main greenhouse gases starting in 2023 with the LSCE laboratory of the CNRS.

These experiments have led to numerous scientific results.

Particules fines



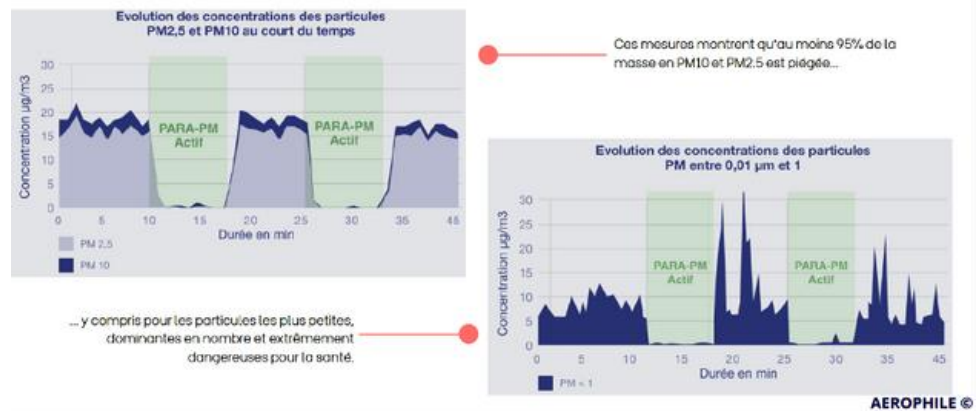
Ozone



The Para-PM, a new outdoor air depollution system for fine particles developed by Aerophile.

After 10 years of research and experiments conducted at the Generali Balloon, Aerophile engineers have developed **the Para-PM, a world-unique technology** based on an innovative **patented ionization and electrostatic** filtration process.

It is a **unique system for capturing fine particulates matter in open spaces**, autonomous and highly efficient as it can **remove over 95% of fine particles**.

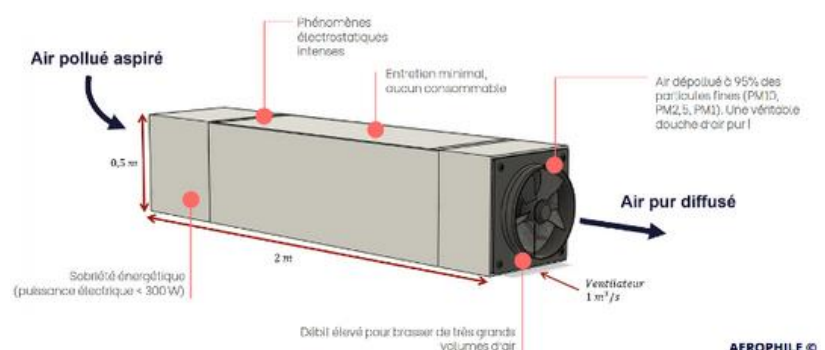


The Para-PM is a solution for large-scale air pollution. It is suitable for all locations particularly exposed to air pollution: **subways, urban centers, urban tunnels, highway toll booths, etc.**

It can also be used in many sites such as the ones that receive sensitive populations such as **schools, hospitals, nursing homes, and sports facilities**.

Aerophile **has won a tender from SOLIDEO, which was seeking effective solutions to purify the air in the Athletes' Village.**

The first prototype is currently being tested in various semi-open or closed sites: subway, library, schoolyard, factory, warehouse, parking lot.

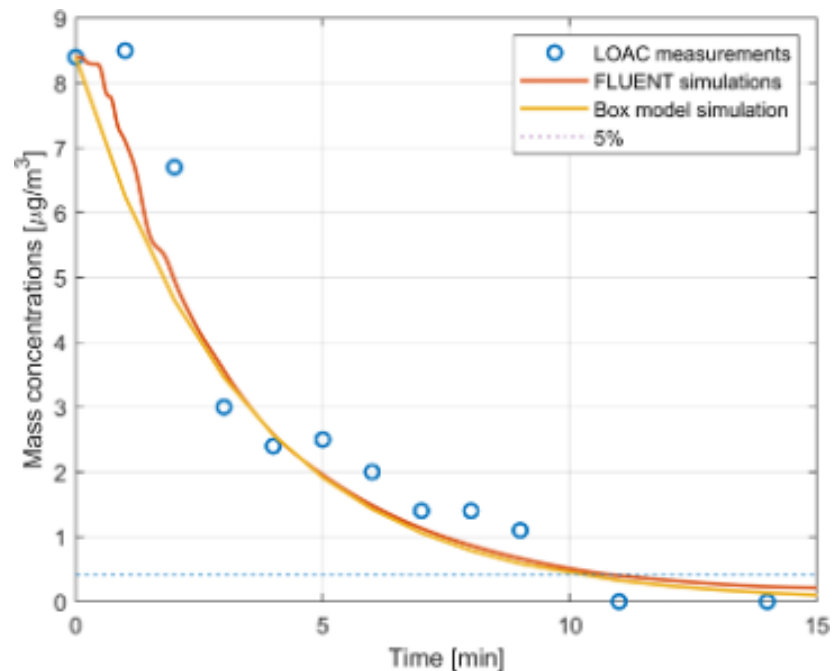


The results are clear and consistent according to theoretical models through numerical simulation.

The Para-PM was tested for the first time publicly during the 2022 Air Quality Day **in a 200m³ room**.

Measurements of fine particulates levels were taken using 3 types of measuring tools, all of which yielded the same result :

=> **After 10-15 min, the Para-PM removes over 95% of PM pollution.**



“ The result of 10 years of research and 2 years of development, we are very pleased to see the results align with the initial calculations. Extremely efficient, easy to use and maintain, very little energy consumption and fully customizable, the Para-PM delivers on all its promises! We will deploy it in many locations where air quality is severely degraded or in symbolic places for this type of innovation, such as the Athletes' Village developed by SOLIDEO, the Olympic Delivery Authority,” explain Jérôme Giacomoni and Matthieu Gobbi, co-founders of Aerophile. ”

THE FIGHT AGAINST AIR POLLUTION, A MAJOR PUBLIC HEALTH CONCERN.

Some figures :

Worldwide, the WHO estimates that every year, **7 million premature deaths** are due to the effects of air pollution, with over **4 million linked to ambient air**.

In France, outdoor air pollution results in: **48,000 premature deaths per year** (study by "Public Health France"), **representing 9% of mortality in France**.

Confirmed health risks

Atmospheric pollution, particularly that related to particles, has proven effects on health and contributes to the development of chronic pathologies (**myocardial infarction, respiratory diseases, cardiovascular diseases, cancers**) that can lead to hospitalization or even death.

Specific populations such as **children, the elderly, or chronically ill individuals** are more vulnerable and therefore more exposed during contamination episodes.

The effect of particles depends on their size. Thus, it is acknowledged that large particles ($d > 5 \mu\text{m}$) stop in the nasopharyngeal region, particles from 1 to 5 μm in the tracheobronchial region, while fine particulates, less than 1 μm , can reach the bronchiolar and alveolar regions and persist there. They can even cross biological barriers and reach other organs.



Questions to Dr Souvet

Cardiologist, President of the Association Santé Environnement France (ASEF)

What aspects of the Generali Balloon initiative appealed to you?

Air pollution is part of our battles. The balloon allows us to inform, to explain concretely what is happening in the air, and breaks away from the alarmist discourse that we have known for years. Simply stating that the air is dangerous does not bring much, except for a reaction of concern from the public and trivialisation of the problem. Clearly explaining what the air contains, at what moment, allows each individual to take responsibility and gives them the means to take charge. It is this approach that appealed to us. Based on the data collected, our role is to explain to each person the actions to take or avoid, depending on their individual characteristics. For a pregnant woman or an elderly person, the recommendations will not be the same.

Do you observe an increase in pathologies linked to pollution?

Yes, because we are now dealing with generations that have always lived in a polluted environment. These patients develop pathologies such as asthma, cardiovascular problems, premature births, sometimes at a very young age... we even realise that certain air pollutants have effects on the intellectual development of children. We are only at the beginning of awareness of the effects of pollution. Therefore, measuring precisely becomes an essential step to better understand and counteract its effects.

What have you done concretely in the context of this partnership?

We have developed educational tools for the public with the teams of the Generali group, including a website that allows everyone, through simple questions, to gain the tools to adapt their behaviour (for example reducing sports activities during periods of pollution). We also provide targeted information to our 2500 fellow doctors who are members of our association on these specific issues. On a larger scale, our association strives to have an impact on public debate on all public health and environmental issues. We want to ensure that aspects of pollution are systematically taken into account, for example, in transportation plans.

THE PARTNERS OF THE BALLON GENERALI

1- AEROPHILE

Founded in 1993 by Jérôme GIACOMONI and Matthieu GOBBI, graduates of the Ecole Polytechnique and engineers from the Ecole des Ponts, the AEROPHILE group designs, manufactures, sells, and operates attractions for the general public, including large captive balloons and Aérobars. It operates an amusement park, the Parc du Petit Prince, located in Alsace between Mulhouse and Colmar.

Since its creation, AEROPHILE has been the **world leader in captive balloons, with 120 balloons sold in 35 countries and over 12 million passengers transported. It is the largest lighter-than-air carrier!**

AEROPHILE operates seven balloons directly, including the one in Paris, at the Great Park near Los Angeles, at Disneyland Paris, at Walt Disney World in Orlando, in Siem Reap above the temples of Angkor, at the San Diego Zoo, as well as in Alsace at the Parc du Petit Prince.

After 10 years of R&D, 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



GENERALI BALLON PARTNERS

2- Generali

As a committed Group, Generali aims to act as a positive force to build a more resilient and equitable society. Sustainability is integrated into all actions and decisions of the company.

Faced with the increasing complexity and globalization of risks inherent in current lifestyles, Generali has integrated sustainable development into all areas of its business since the early 2000s, particularly by encouraging responsible behaviors that contribute to risk reduction. Generali aims to be a **partner to its clients throughout their lives**, contributing to both their personal and professional protection, as well as their future projects and heritage transmission.

Encouraging research and innovation for health.

In 2013, Generali was the **first insurer in France to take an interest in the impacts of air quality** on health by becoming a partner with the Balloon of Paris, an air quality observatory, which became the Balloon Generali. For nearly 10 years, Generali has been contributing to funding the research conducted by the CNRS on the evolution of fine particles in the atmosphere based on measurements taken aboard the balloon. Following this partnership, Generali has collaborated with doctors from the **Association Santé Environnement France** (ASEF) to enhance actions and information on the impacts of environmental pollution on health to its clients.

The Covid-19 pandemic has underscored the need to accelerate health research and improve access to healthcare for all. Therefore, in 2021, **Generali co-founded Future 4 Care with Sanofi, Orange, and Cap Gemini**, an ecosystem of digital health open innovation, unique in Europe. The objective is to develop e-health solutions and promote their market expansion for the benefit of all, especially patients and healthcare professionals.

Future 4 Care includes a start-up accelerator and an institute bringing together healthcare personalities. Already, 35 start-ups have joined the accelerator, with the goal of reaching full potential with a hundred start-ups. Future 4 Care aims to become **the European hub embodying progress in digital health.**

GENERALI BALLON PARTNERS

2- Generali (following)

Incorporating new services to health protection

The Future 4 Care ecosystem facilitated the encounter with Meersens, a startup specialized in the analysis of the exposome (the combination of a person's genetic makeup and the environmental factors to which they are exposed) and developing digitized solutions for health protection in the face of widespread pollution (<https://meersens.com/>).

A bridge was thus created between the research advancements aboard the Generali balloon and the development of a new personalized environmental health information service.

Since September 2022, as part of its social action programs, employees of companies insured by Generali will benefit from an app, Meersens Pro.

This app **covers six themes: air quality, water, noise, pollen, UV rays, and nutrition**. Each theme is addressed with markers, diagnosing the environmental factors in which individuals operate and providing tailored advice to minimize risks as much as possible.

Ultimately, **300,000 employees of companies insured by Generali participating in its social action program** will be able to benefit from Meersens Pro. The initial results observed in the first wave of implementation are promising, with a 70% opening rate for the launch email.

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