

Press release
Sénas, November 5, 2020

Mosquito control and malaria reduction in Senegal: QISTA installs 104 units of its ecological mosquito control system in Kaolack

Despite the difficulties related to the COVID-19 pandemic and lockdown measures, QISTA continues its international development. Particularly in countries where mosquitoes, much more than COVID-19, represent a serious public health problem because they are vectors of diseases such as malaria or dengue fever.

QISTA, the young French company developing an innovative mosquito control solution by using biomimicry, inaugurated **the MoniPrev project** at the El Hajji Ibrahima Niassé regional hospital in **Kaolack** - one of the largest cities in Senegal - last Saturday, October 31, in the presence of **Mr. Oumar Gueye** (Minister of Local Authorities, Regional Planning and Development) and **Mr. Philippe Lalliot**, Ambassador of France to Senegal.

In 2019, among 226 companies, QISTA won the call for projects "**Innovative Solutions for Sustainable Cities in Africa**", financed by **the French Treasury**. This in the perspective of the Africa-France 2020 summit, initially scheduled to take place in Bordeaux on 4, 5 and 6 June 2020 and currently being rescheduled for 2021.

QISTA has just installed a total of 104 mosquito traps in the Kaolack Regional Hospital, but also around schools, medical centres and other public spaces in the department.

The mission is twofold: to protect areas infested by malaria and to monitor potential areas of mosquito proliferation. A project carried out alongside **the PNLP** (National Malaria Control Programme) which is trying to find effective solutions in order to meet **the objective of 0 malaria in Senegal by 2030.**

While all eyes are on Covid-19, **vector-borne diseases transmitted by mosquitoes** (malaria, dengue fever, Zika, chikungunya...) are more fatal overall, having for a long time been responsible for at least **830,000 deaths¹ worldwide** each year. They are a major health problem in the province of Kaolack as in the vast majority of Senegal. This is despite the regular mosquito control operations carried out in the country. In the face of this situation, it has become necessary to opt, in the endemic area of Kaolack (16,580 cases of malaria in 2017²), for a solution that complements traditional mosquito control (**which involves the systematic use of non-selective pesticides**).

Indeed, **the targeted fauna is not the only victim of these products.** Any living being that gets in contact with these molecules is in danger. Moreover, these pesticides generate

¹ Gates Notes – [World's Deadliest Animals](#) – Based on data from IHME, OMG, CrocBITE, FAO, Norwegian Institute for Nature Research, International Shark Attack File, National Geographic, PBS, National Science Foundation, CDC, WWF, IRD, *Wilderness & Environmental Medicine, Nature*

² Year of the last census - Source: National Malaria Control Programme - [2017 Annual Epidemiological Bulletin of Malaria in Senegal \(March 2018\)](#)



resistance in mosquitoes, making them increasingly difficult to eliminate in the event of an epidemic (395,706 cases of malaria reported in Senega in 2017³).

Protected by **two patents**, QISTA's mosquito traps are **eco-friendly**. They disperse **recycled carbon dioxide to mimic human respiration**, which attracts **female mosquitoes** ready to bite (males do not bite). At the same time, **they spread an olfactory lure to simulate body smell** in order to bring the mosquito closer to the trap. **Then, they capture the mosquito by suction**. Male mosquitoes and other insects (bees, butterflies, ladybirds...) are not attracted by the trap and can continue to play their role in their environment.

In addition **to locally reducing mosquito populations by more than 80%⁴ and thus reducing the number of mosquito bites** with the linked risk of disease transmission, these connected traps allow local health authorities to undertake **a precise analytical monitoring of mosquito activity** and therefore **a better appreciation of the vectorial risk**. The trap offers a veritable **real-time monitoring system** thanks to geolocated sensors analysing the volume of mosquitoes captured or current and future infestation levels. This data is then cross-referenced with meteorological and environmental changes in the immediate vicinity of each device.

QISTA therefore intends to become **a proper decision-making tool for communities**, while continuing **to protect citizens** from mosquito nuisance. By continuing to develop its solution within **African countries heavily affected by malaria** - with installations in **Ivory Coast** (where effectiveness has been analysed by the National Institute of Public Hygiene, which recommends them), **Burkina Faso** (with the French Army) and **Mali** (protection of a wastewater treatment area), the company also pursues its efforts to develop its vector control activities **in Asia and in the United States**.

About Techno BAM and QISTA

Created in 2014 and based in Aix-en-Provence, Techno BAM specialises in eco-responsible mosquito control and vector prevention. It currently employs around forty people and has a turnover of €2 million in 2019. The company, created by Pierre Bellagambi and Simon Lillamand, has developed the QISTA solution, a mosquito control device using an ecological trap that protects against bites but also enables mosquito populations to be monitored for the purpose of preventing the diseases they may carry. Air Liquide, France Industrie and TDH (Thierry Dassault Holding) acquired a stake in the French start-up in 2017. In 2018, QISTA was awarded at the CES in Las Vegas. Today, QISTA is present in more than 40 municipalities in 13 countries, with a total of more than 5,000 traps installed. For more information: <https://qista.com/en/> and [@qista_technobam](https://twitter.com/qista_technobam)

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³ National Malaria Control Programme - [2017 Annual Epidemiological Bulletin of Malaria in Senegal \(March 2018\)](#)

⁴ Report on the BAM trap experiment at Sambuc in 2015 - [Tour du Valat](#)