



Bacteria Detector

Continuously monitors air samples to detect abnormally high concentrations of airborne bacteria

WHAT PROBLEM DOES THE TOOL HELP SOLVE?

The Bacteria Detector continuously monitors bacterial concentration in the air to help protect citizens from biological hazards. It communicates with the IMPETUS platform to raise alerts with the authorities.

Without the tool:

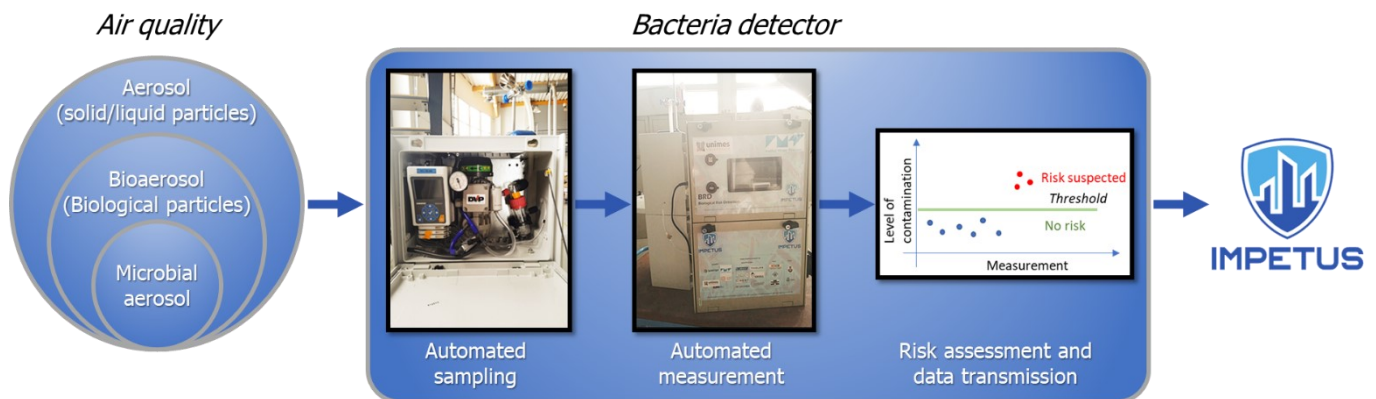
- One person can infect 1–10 other people, depending on the pathogen
- Physicians need to take samples from patients to find a suitable treatment, which prolongs treatment
- Hospital staff are not protected, and an epidemic can be declared the day after the disease appears

With the tool:

- Only those present at the point of infection are contaminated
- Samples are taken in the room and from patients (with a result in <4 hours)
- Physicians readily adapt their procedure and treatment plan, thus saving time
- Hospital staff are protected, and the risk of spreading is limited

HOW IS IT DEPLOYED IN IMPETUS?

- **Who are the users:** Trained technicians operate the equipment. Security centre operators and stakeholders in hospitals, government officials, senior level management, etc. receive early notification of possible contamination threats and infectious bacterial outbreaks through online monitoring.
- **What are the critical situations for deployment:** Continuous: the main purpose of the tools is to provide constant situational awareness and raise alerts when needed.



HOW DOES IT WORK?

This tool combines an air biocollector (developed by IMT Alès / University of Nîmes) and a bacterial concentration measurement device*. Firstly, air is sampled using an impinger and any bacteria trapped on the device are resuspended in water. Secondly, the water is analysed to measure bacteria in the air. Finally, the data is sent to the IMPETUS platform and an alert is triggered if the measurement exceeds a defined threshold.

*Marketed under [Glow'N'Care](#), [GLBiocontrol Company](#)

