

DATASENSELABS

AI-SUPPORTED BIOTHREAT DETECTION

PLATFORM



→ HARDWARE AGNOSTIC SOFTWARE PLATFORM:

The 'DataSenseLabs AI-supported BioThreat Detection Platform' supports several quantitative phase imaging light microscopic sensor-based data inputs and two different computer simulated image data inputs not only for algorithm development, training, testing and evaluation; but also for field application.

→ EVALUATION FRAMEWORK:

The Multiple Data Input dependent Cross-Validation Concept, which enables real-time, on-site raw data level verification, provides an evaluation framework not only for R&D and database development, but also for product and service-related application support and the field technician's decision support.

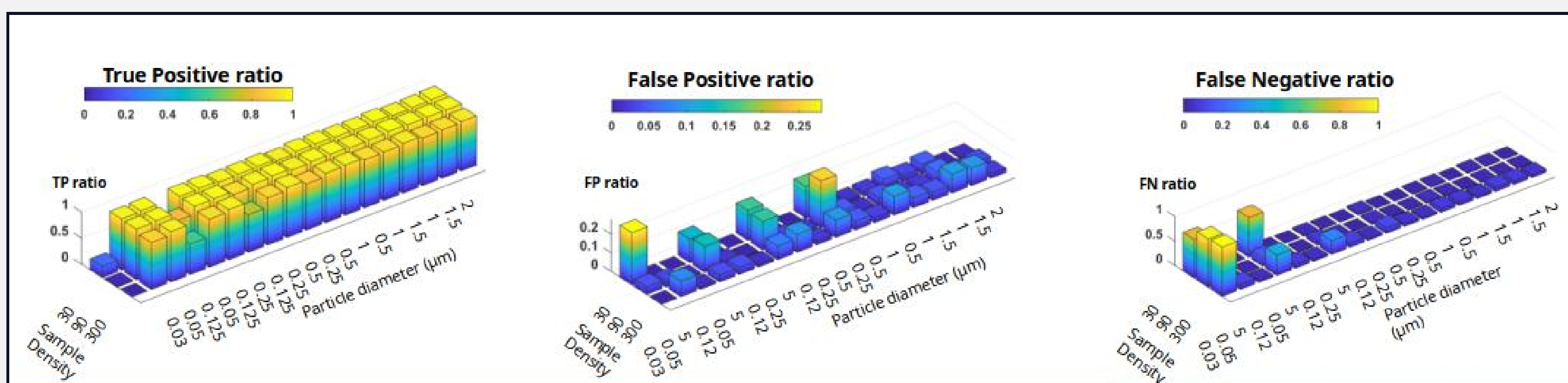
→ FIELD DEMONSTRATION VALIDATED BIO-THREAT DETECTION CAPABILITY:

The platform's algorithm system can detect and monitor the anomalies in the concentration of bacillus form objects sampled from the air with higher than 90 – 99 % accuracy depending on the study design, sample type and the microscope sensor methodology.

→ PROTOCOL AND TIME FRAME OF AIRBORNE BIOTHREAT DETECTION:

Air Sampling: 5 mins	Sample Preparation: 1-5 mins	Microscope measurement: 5 mins	AI-Supported Bio-detection Platform: 30 secs	
				

THE LIMIT OF DETECTION IS WITHIN VIRAL RANGE, BW 30-50 NM, UNDER IDEAL CONDITIONS:



Background material:
https://doi.org/10.1007/978-3-031-62083-6_10
<https://www.mdpi.com/2076-3417/15/4/1778>
<https://datasenselabs.net/blog/>

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Video summary:

