



Real-time 3D imaging and measurements of algae, bacteria, microplastics and other particles

We enable new insights and process control in food, biotech and environmental monitoring

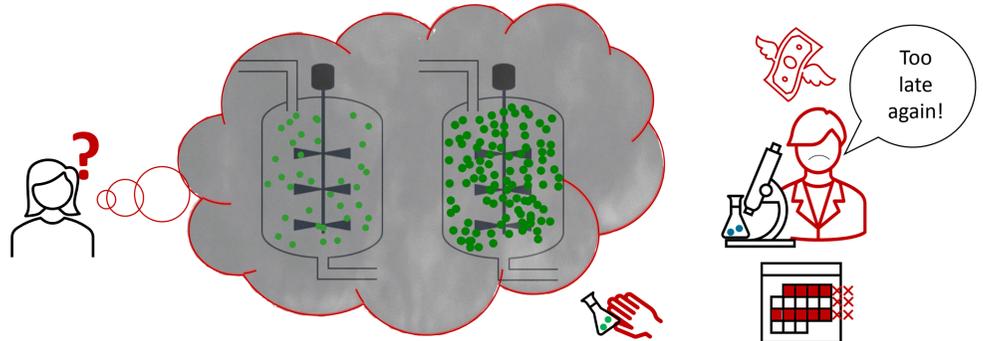
The Problem

Manual monitoring by highly skilled personnel, taking samples at long intervals

Lacking objective and standardized decisions

High labour costs

Lost production time or inefficient production



Our Solution

Holloid's distributed microscopes provide automated, consistent, detailed information to optimize productivity

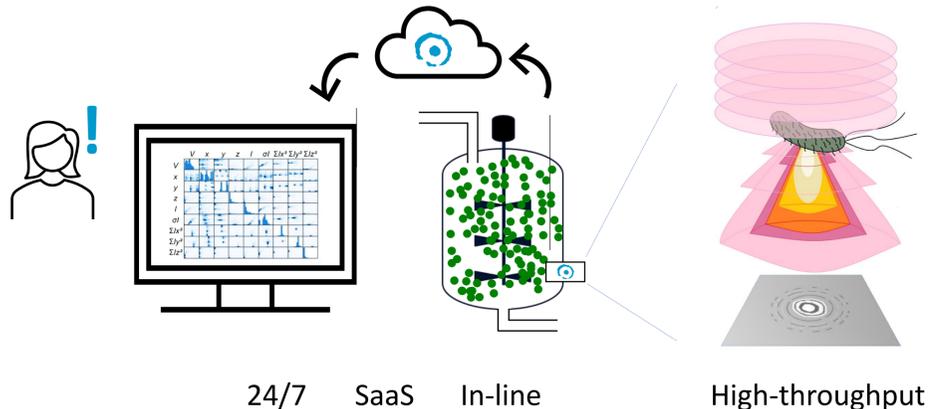
The 'internet of microscopes' warns early of sterility issues, competing organisms, other contaminating particles

Light shines through a sample and scatters when hitting particles

A camera collects the info on all particles in a single image, a hologram

From each hologram we reconstruct 500 images with all particles in the volume

The book-sized devices consist of low-cost standard parts



24/7 SaaS In-line High-throughput

Size, shape, internal structure, motility and other characteristics and dynamics of each object are measured

The data can be processed on the premises or in the cloud → Software as a Service → low setup costs

High information quality AND high throughput

	Holloid	QPI-DHM	Microscopy	Cytometry	Laser Diffraction	Plating
size range	✓	✗	✓	✗	✓	✗
bacteria, pollen, spore	✓	✗	✓	✗	✗	✓
ease of sample preparation	✓	✓	✗	✗	✓	✗
dry mass	✓	✓	✗	✗	✗	✗
color information	✓	✓	✓	✓	✗	✗
shape and inner structure	✓	✓	✓	✗	✗	✗
high throughput	✓	✗	✗	✓	✓	✗
Further technical development in progress						
automated analysis	✓	✓	✗	✓	✓	✗
real-time / inline	✓	✓	✗	✓	✓	✗
dynamics	✓	✗	✓	✗	✗	✗
interactions	✓	✗	✓	✗	✗	✗

Your benefits

	Current methods	Holloid
Who does the monitoring:		
How much is monitored:		
Insights gained:		
How much it costs:		

Holloid

Process Monitoring

- in-line
- real-time
- automated
- 24/7
- consistent

for algae production, breweries, beverages, food and pharma

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Incubators and grants

