



AQUALITAS

Water Quality Monitoring
Has Never Been Easier

PRESENTING
Dr. Georgy Maikov, MBA
Founder & CEO

 smart
agrifood
industry



SMART AGRICULTURE SENSORS



Light Intensity



pH Level



Electrical Conductivity



Temperature



Moisture

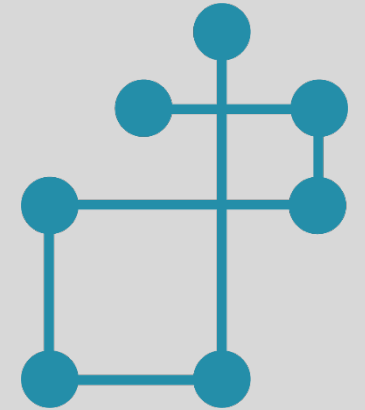


Water leak



Electrical Conductivity

- 💧 Affordable
- 💧 Simple to use
- 💧 Relatively stable
- 💧 Easy to calibrate
- 💧 **Nonspecific**



High Data Integrity

Ion Selective Electrodes

- 💧 **High specificity**
- 💧 Expensive
- 💧 Complex calibration
- 💧 Unstable



Low Data Integrity



WATER QUALITY MONITORING

The year-over-year growth rate for 2017 is estimated at

▲ **16.16%**

Current solutions are not sufficient for:

- 💧 **Smart-Agriculture**
- 💧 **Smart-city**
- 💧 **Industry 4.0**

WHAT IS REQUIRED



Real-Time Multi-parameter Sensing



Low Maintenance



Affordable

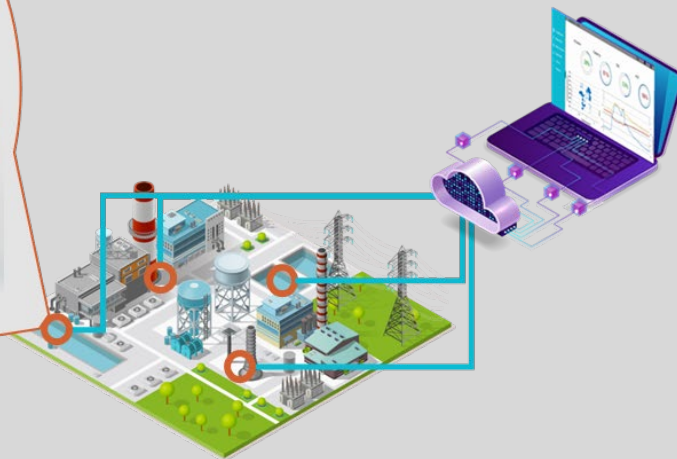
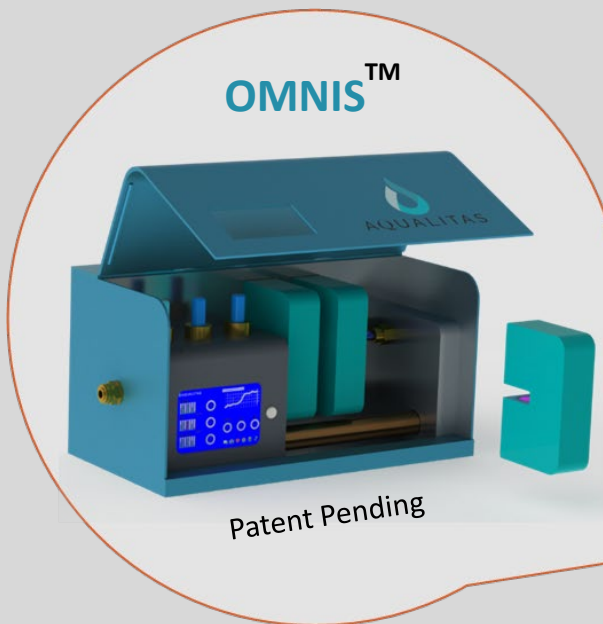


Easy to Use

“A drop of water, if it could write out its own history, would explain the universe to us”

Lucy Larcom

CONTINUOUS WATER QUALITY MONITORING PROVIDED AS A SERVICE



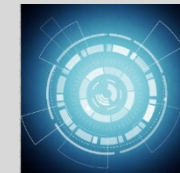
ELECTROCHEMICAL

- pH
- ORP
- Dissolved oxygen
- EC
- Etc.



OPTICAL

- Total organic carbon
- UVA 254nm
- N-NO₃
- Turbidity
- Alkalinity
- Etc.



VIRTUAL

- COD₅
- BOD₅
- Ammonium
- Free Chlorine
- Total dissolved solids
- Etc.

01

FULL SENSOR MODULARITY

- Plug & Play architecture

02

DYNAMIC ALGORITHMS

- Self-diagnosis & Self-calibration

03

LOW MAINTANANCE

- High Data Integrity

04

MULTI-SYSTEM INTEGRATION

- Build your IoT Sensor network

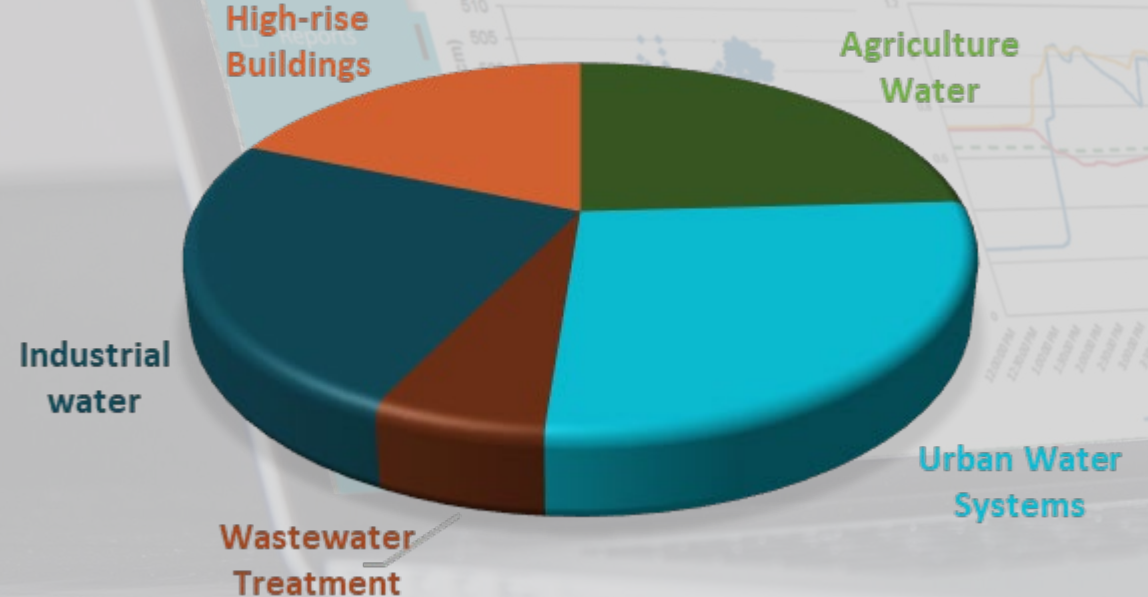
DON'T BUY - USE

Monitoring as a Service (MaaS)

Multi-year contracts with monthly payments

- ✘ Big CapEx costs
- ✘ Runaway maintenance cost
- ✘ Equipment depreciation
- ✔ Known OpEx
- ✔ Continuous support and responsibility
- ✔ Pay as you Grow-Flexibility

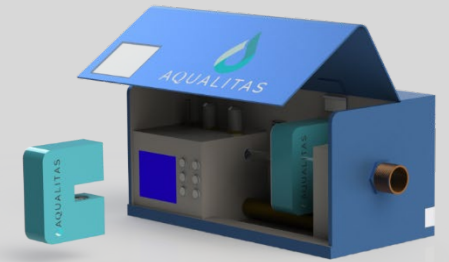
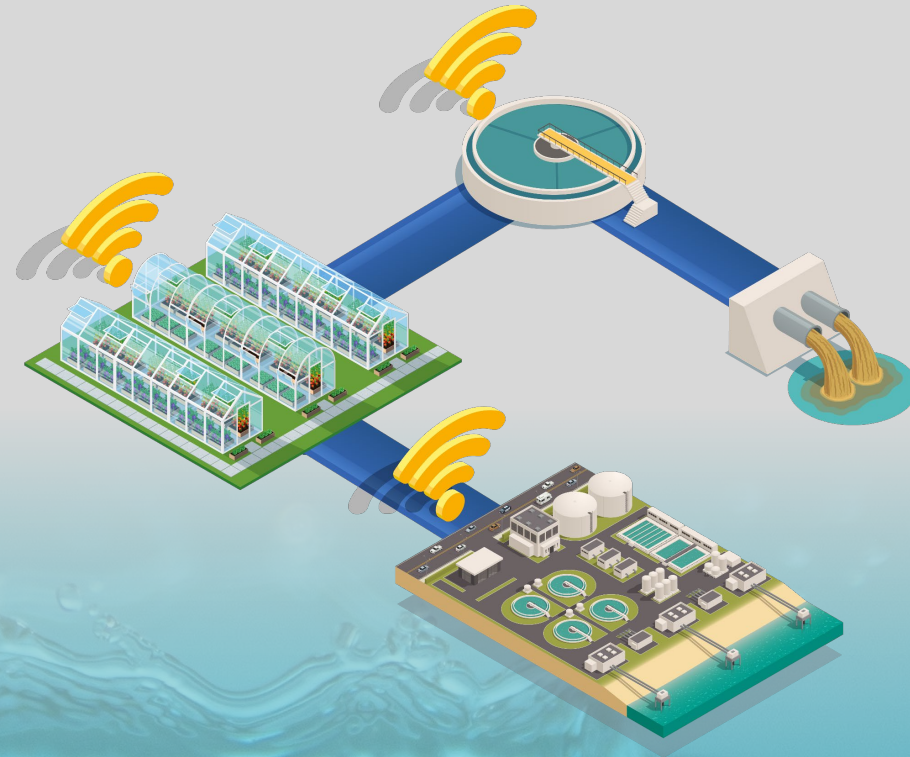
\$17 BILLION TAM (US & EU)





KNOW YOUR WATER

- 💧 USE SAFE WATER
- 💧 REDUCE FERTILIZER USE
- 💧 REDUCE WATER USE
- 💧 INCREASE YIELD
- 💧 SAFE WATER DISCHARGE



FOUNDERS



Georgy Maikov
Ph.D., MBA
Founder&CEO

Holds a Ph.D. in Physical Chemistry from the Technion. Worked in the USA, Germany, and Israel managing the development of innovative technologies in multiple fields. Founder of To4C scientific-technological Consulting.

Expert in technological innovation



Jenya Tilchin
Ph.D.
Co-Founder &CTO

Holds a Ph.D. in Nano-Technology from the Technion. Led numerous collaborative research projects. Held a CTO position in a smart agriculture startup. Founder of To4C ltd.

Expert in molecular sensing

ADVISORY BOARD



Ronen Shechter
CTO at Fluence corp.



Sivan Yechieli
CEO at I4Valley



Zvika Weinstock
CTO at I4Valley

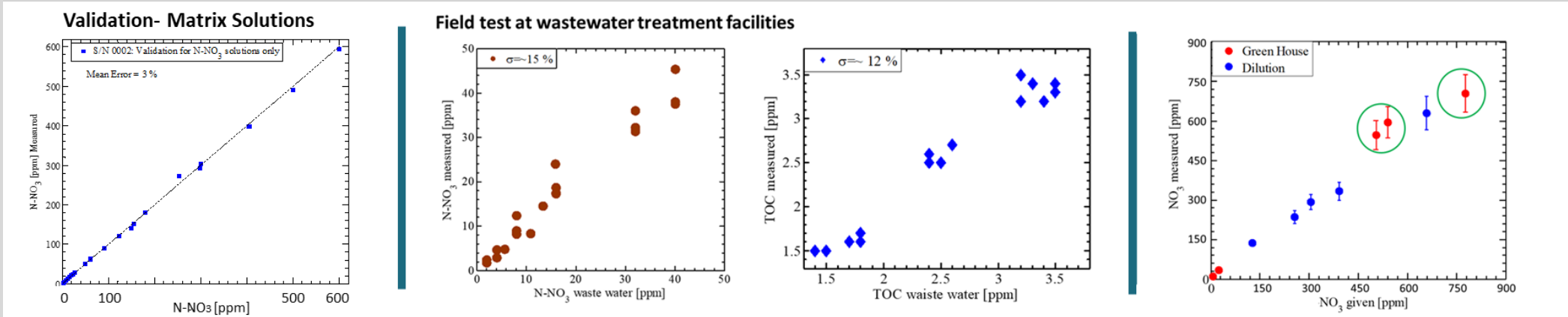


Development Stage

AQUALITAS UNUM

Nitrate POC

Current Development Stage	
Stage	Developed
Number of Optical Paths	2
N-NO3 Range of detection	2-40ppm or 0-600ppm
Average Accuracy (N-NO ₃) In multi ion solution*	±12 %
Accuracy (N-NO ₃) as sole component	±5 %
TOC Range of detection	0-40ppm
Accuracy (TOC)	±9 %
Precision	< ±7 %
Operation temperature	5 °C - 40 °C

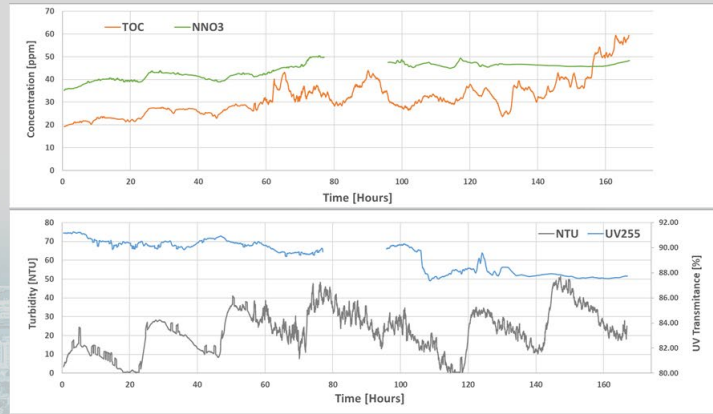


Alpha Field-Test in Wastewater Facility

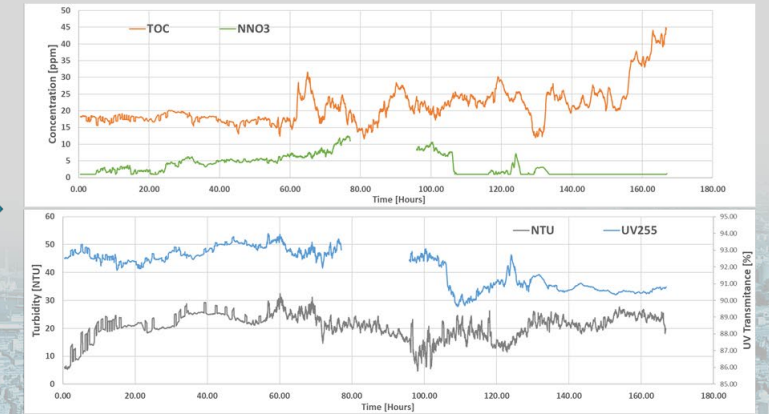
Effluent stream

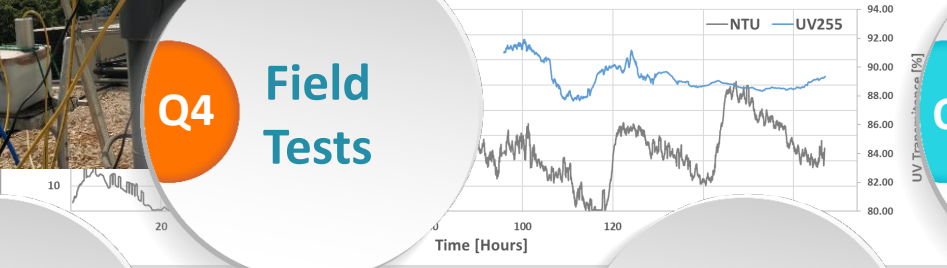
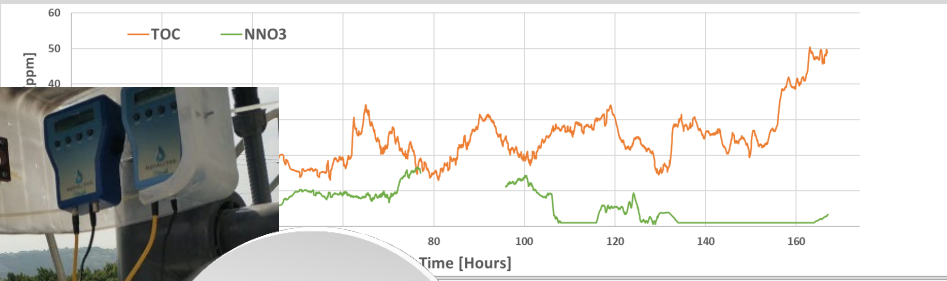


Calculated from raw data



Applying Compensation algorithms





Q2 Lab PoC & Prototype

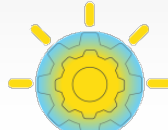
Q4 Field Tests

Q1 MVP Launch

Q3 Provisional patent application

Q3 Beta Testing

Q1 Full Product Launch



i4Valley
Karmiel Incubator for Smart Industry

Reinhold Cohn Intellectual Property Group

fluence

UNUM™



OMNIS™



Haifa Smart city Hackathon



Industry 4.0 Startup Summit



AQUALITAS

Water Should Not Be
A Secret

Join Us!

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Acknowledgment

Isometric city Designed by macrovector / Freepik

boiler-factory-illustration by macrovector / Freepik

water-cleaning-purification-isometric-flowchart by macrovector / Freepik

industrial-buildings-isometric-flowchart-with-isolated-images-plant-area-buildings-with-lines-text-captions by macrovector / Freepik

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