



Safe water for all

Real-Time optic based sensing,
with A.I. analytics and IIOT control



**CYBER & POISON
TERRORISM**



SEWAGE LEAKS



**WORN OUT
PIPELINES**

Water
distribution
systems are too
vulnerable!



HUMAN ACCIDENTS



EARTHQUAKES



**WATER
CONTAMINATION**

Water Pollution Events



BBC NEWS

Flint water crisis: \$626m settlement reached for lead poisoning victims.
Nov. 10, 2021

Cancer-Linked Contaminants Found In NYC Drinking Water: Study

...cancerous contagions have been found in city water...

Oct 23, 2019

The New York Times

More Lead-Tainted Water in Michigan Draws Attention to Nation's Aging Pipes

October 16, 2021

CBS

New study claims 43 states expose millions to dangerous chemical in drinking water

MAY 7, 2019

CNN

Florida's water plant cyber attack was done by remote access - lack of proper security...

Feb. 13, 2021

DAILY NEWS

Lead in some Canadian water worse than Flint
The Associated Press

Nov 5 , 2019

CNN

Uranium, Other Dangerous Chemicals Released Into Detroit River

December 10, 2019

y net
דיעות אחרונות

Iran hacked Israeli Water Authority sites

According to Fox News, Iranians launched their attack on the Israeli infrastructure sites last month
July 5, 2020

Current drinking Water Monitoring Systems



A comprehensive solution – for water authorities & water utility providers



A smart AI-based service, combining superior IIOT sensors and analytics, for safer yet cheaper water monitoring

Gen 1



Hundreds of cheaper sampling points sending real-time water quality data

Gen 2



Real-time view of the entire water grid, alarm & management tools - **with future control on valves flow to allow rapid response and treatment in case of contamination detection**

Patented multi-parameter optical sensor

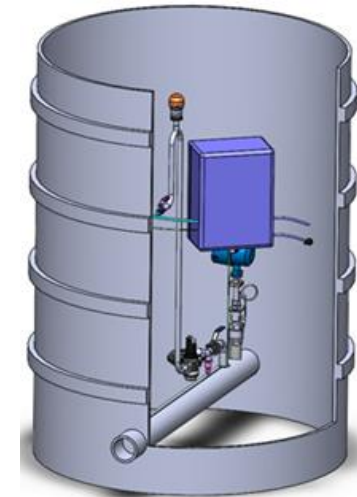
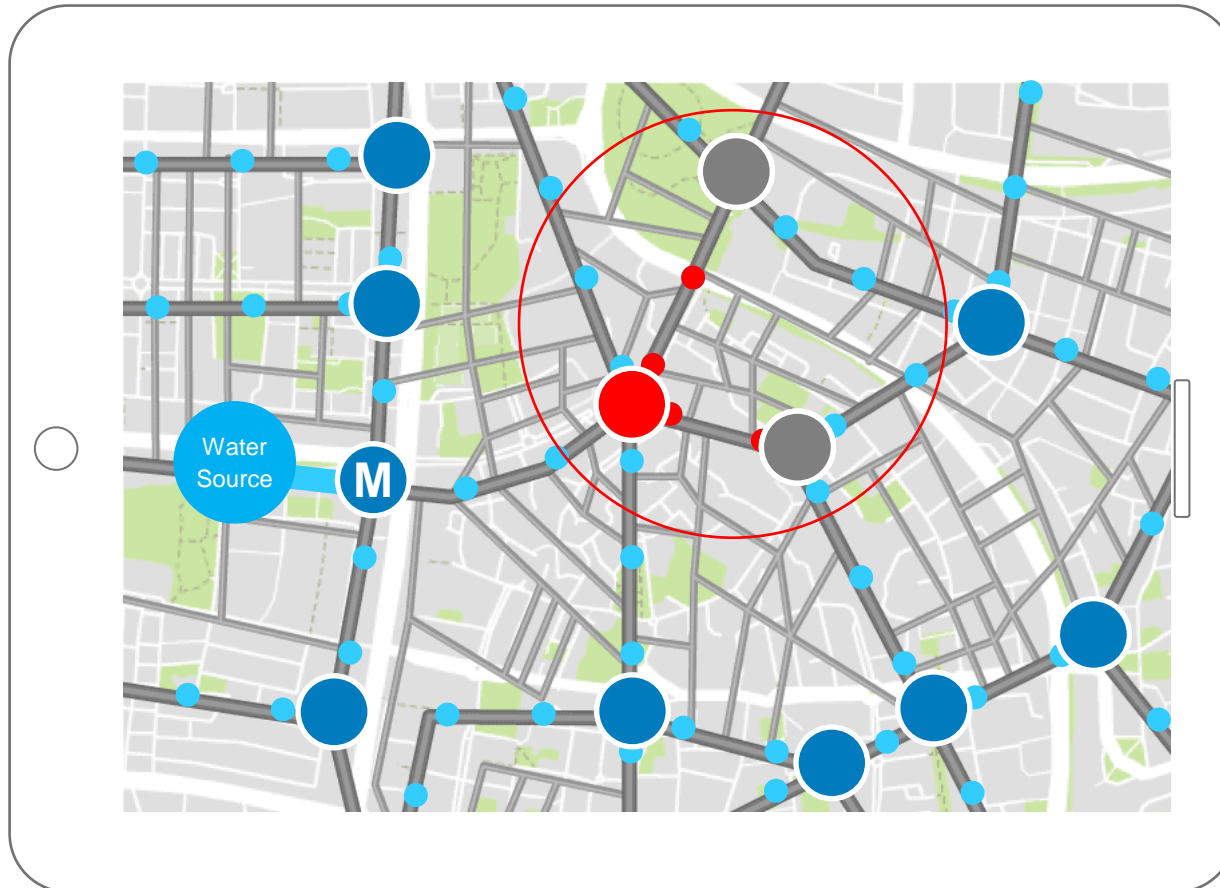
(compact, low-cost, battery operated + near zero discharge)



Spread-direction analysis

Our risk management support system

Once an early risk of infection is detected in real-time, potentially-affected areas are identified and alerted to effectively contain it.

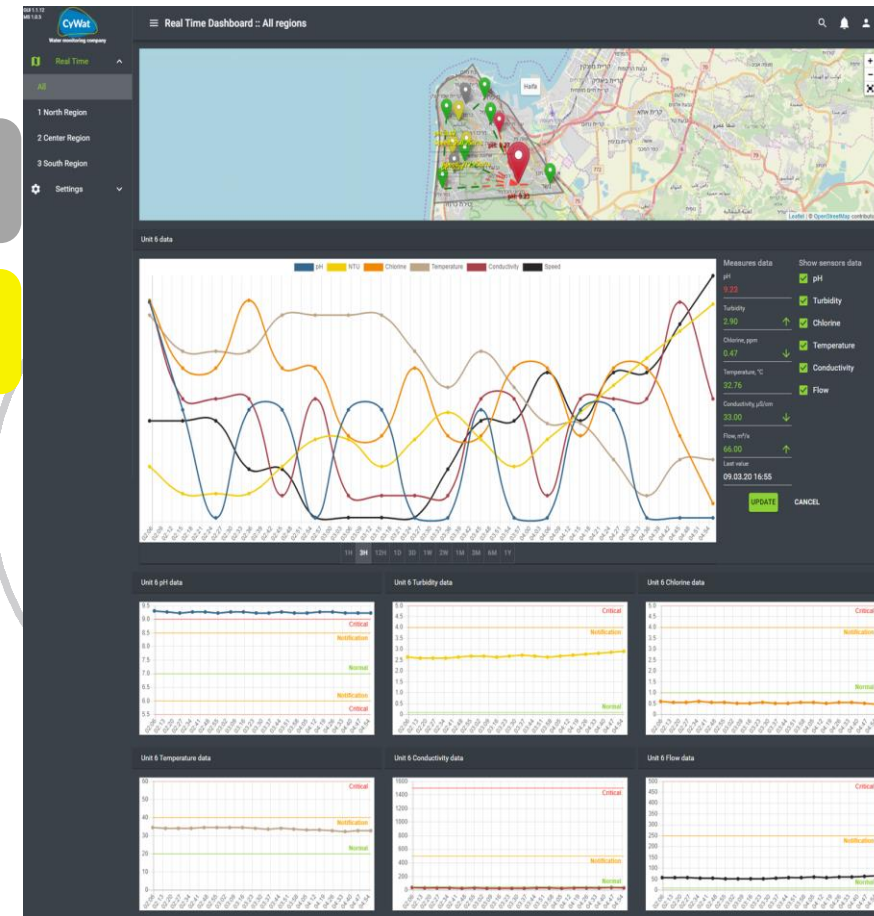
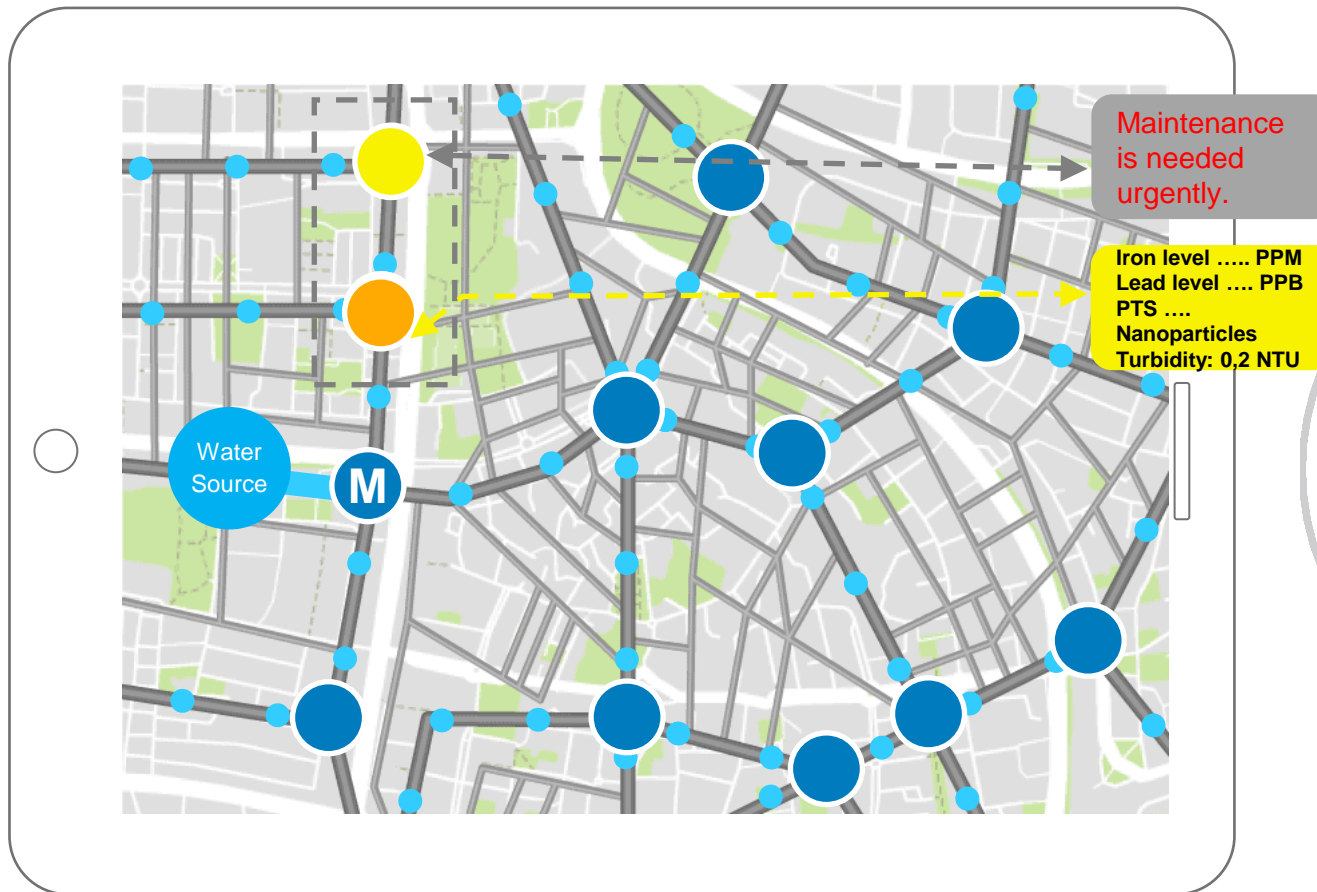


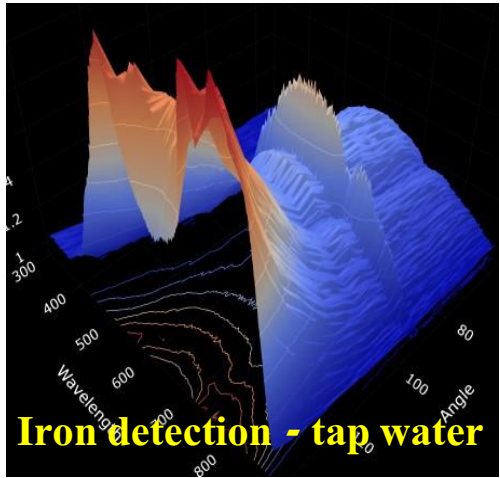
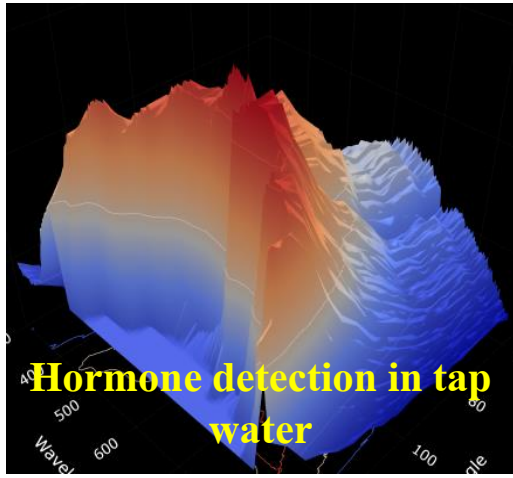
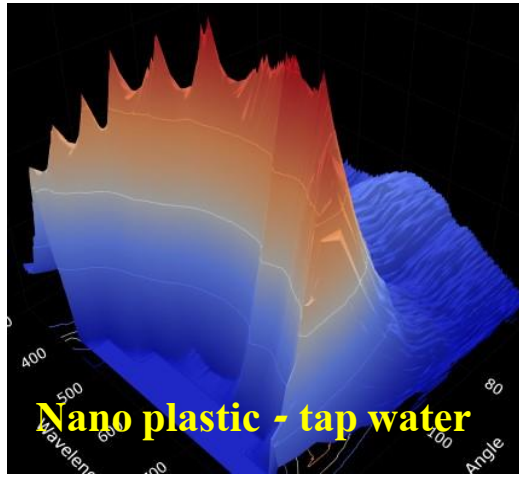
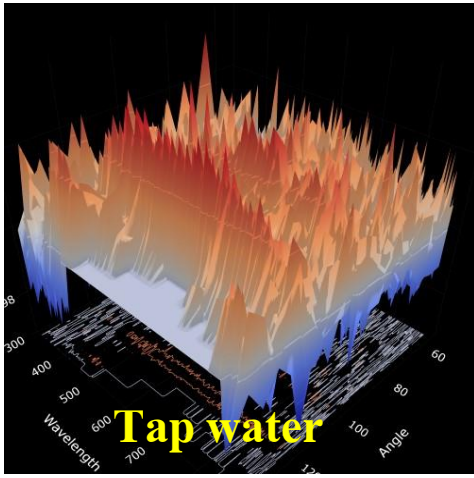
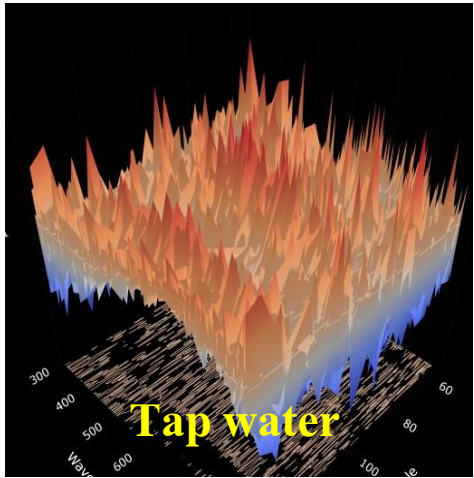
Small sensors are installed in manholes or above ground in secure locations.

Our preventive maintenance – huge ROI

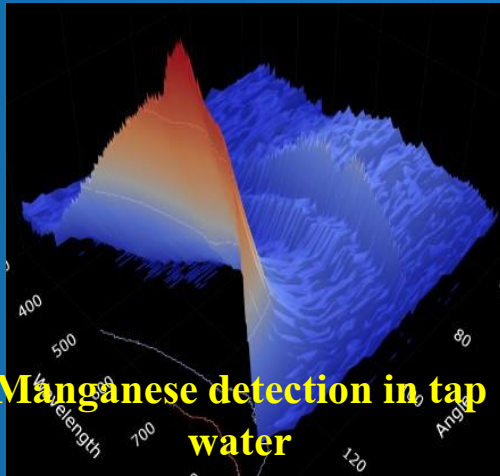
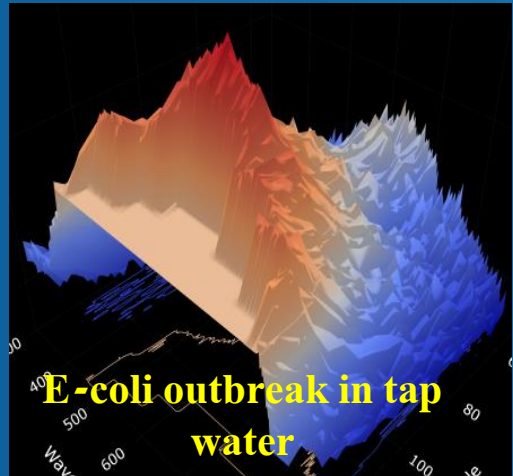
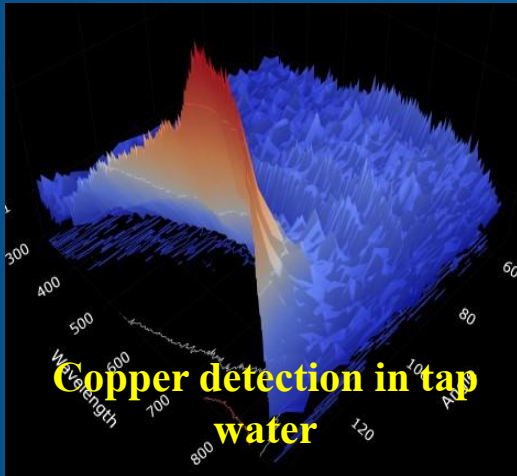
AI based model identifies early forecast of contamination events

- Early projection of pipes deterioration levels & leak detection forecast
- Focus of maintenance only where it is truly needed





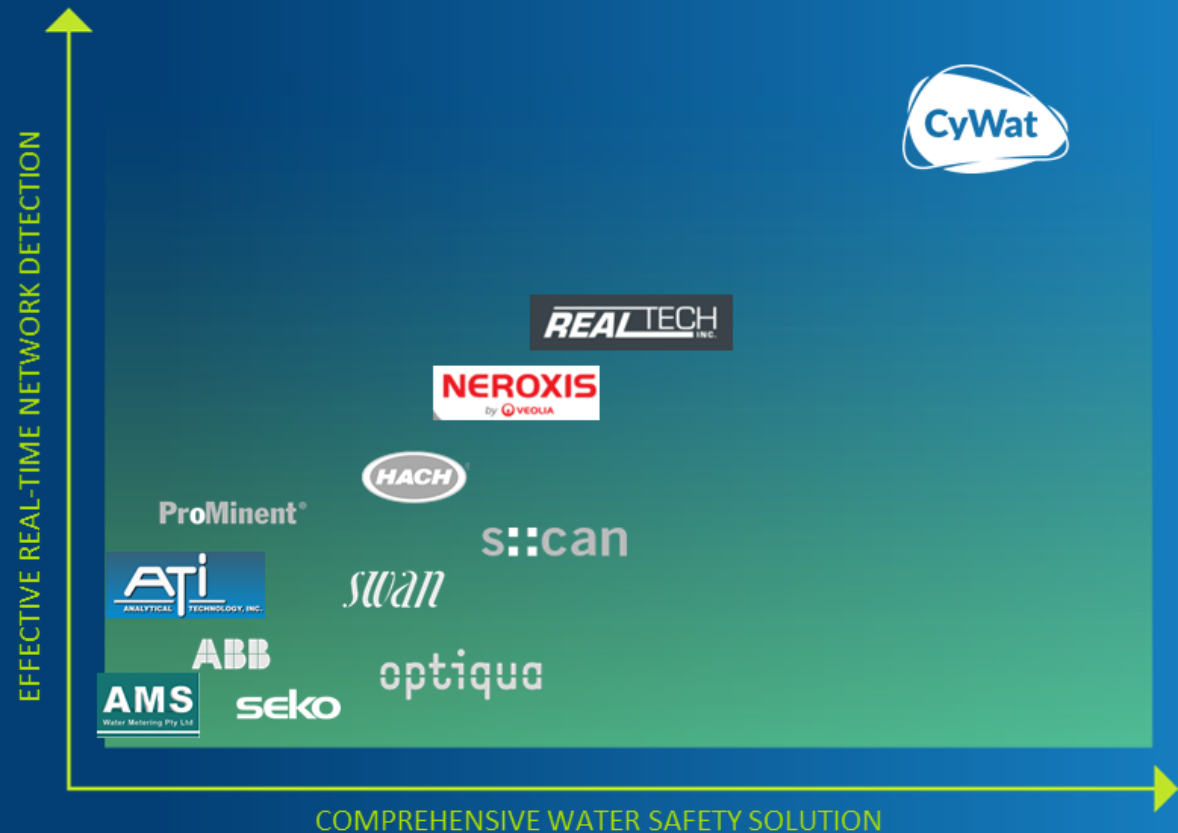
CyWat's technology can detect in real-time even the smallest changes in tap water. And even more important is the fact we can detect the pollutant as: A specific Chemical or Bacteria Or as an industrial infection And it's presence levels All in one SENSOR



CyWat's strong Advantages

The only company providing a comprehensive and accurate Real-Time threat secure service.

- The only Real-Time & Specific infection detection
- Most accurate – all in one system
- Widest pollutants coverage with IPL technology
- Uniquely holistic – end to end
- Fastest to deploy & easy to maintain
- Cost effective only €3K per unit VS a € 20-25K cost of other indication only sensors.



Huge market verticals & applications

WATER & WASTEWATER TREATMENT MARKET

Global Water & Wastewater Treatment Market Size, 2018-2026 (USD Billion)

\$265.30 Billion in 2018 **\$456.68** Billion by 2026

Global Water & Wastewater Treatment Market Share, By Segment, 2018

Chemicals 9.8%
Equipment | Services

North America Water & Wastewater Treatment Market Size, 2018



\$104.53 Billion

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Industrial Water Service Market 2021-2031

Key Market Strategies



Provide High Purity Water to Increase Equipment Life and Enable Uninterrupted Operations



Gain Proficiency in Technologies like Multimedia Filtration and Ultrafiltration to Build Credibility

6.9% CAGR (2021-2031)

Market Value 2031
US\$ 556.63 Bn

Market by Region, 2021



End User

- Pharmaceutical Industry
- Power Generation Industry
- Pulp & Paper Mills
- Microelectronics
- Food & Beverage Industry
- Oil & Gas
- Automotive
- Mining & Metals
- Others



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GLOBAL WATER QUALITY MONITORING MARKET

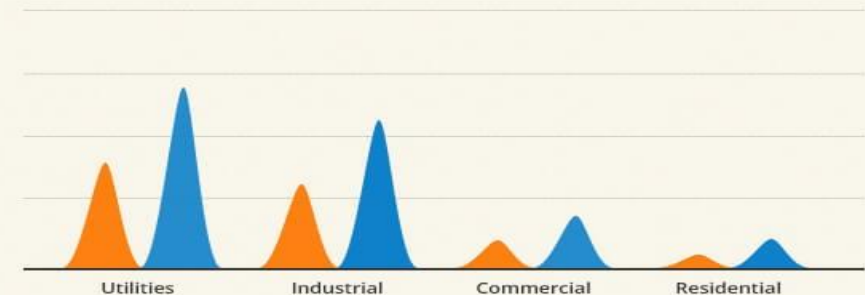
2020-2027



GLOBAL WATER QUALITY MONITORING SYSTEMS MARKET

BY APPLICATION

2017 2025



Utilities sector holds a dominant position in Water Quality Monitoring Systems Market in 2017 and residential sector would continue to grow at a significant growth rate of 8.3% during the forecast period.

Cywat's patent

Currently pending in
51 countries.

Already granted in:

- Europe,
- USA,
- China,
- S.Africa
- Israel
- Australia



Head of Water Security endorsement

"I have no doubt that water suppliers will be required to deploy such a system in the near future."

*"I believe that **CyWat** will provide the best response to the existing problems, in terms of sanitation and security"*

*"Water infrastructures world wide are exposed to many **infections** and **terror attacks** and currently there isn't any effective technological solutions for this problem"...*

"...I am convinced that... it will be a reliable and suitable solution, for the Israel Water Authority and the Ministry of Health..."

State of Israel



WATER AUTHORITY

Danny Lacker

HEAD OF THE WATER SECURITY DEP. IL

A TEAM OF INNOVATORS & EXPERTS



Thor Halperin, Esq
Founder & CEO

A former senior International BizDev advisor to Flextronics, with 18 years of experience as a commercial Lawyer
Former 8200 unit member.



David Fleishman
Founder & CTO

Former CEO in water security companies
Entrepreneur with 14 years of finance and development experience
CFO in 2 companies



Dr. Karin Vered
Research lab manager

MSc in Clinical biochemistry – Faculty of Medicine, Tel Aviv University
PhD in Clinical microbiology & immunology
Faculty of Medicine, Tel Aviv University
12 years of experience in molecular biology, advanced lab techniques, bacteria identification.



Shay Ehud
VP software

20 years of experience in computer engineering Inc. sophisticated algorithms and big data mining



Prof. Dror Fixler
Chief Scientific Officer
Leading Optical Advisor

Director of the Bar-Ilan institute of nanotechnology and advanced materials.
Professor of Electrical engineering and Nano photonics.
Winner of European Science Foundation's Plasmon-Bionanosense Award
President's International Fellowship Initiative
Award of the Chinese Academy of Sciences (CAS)



Yossi Deutsch
R&D Opto – Mechanical Eng.

35 years of experience in Military sites systems & engineering
20 years of experience as Medical & industrial Lasers specialist



Jean Horgen
BizDev Advisor to the board – EU Countries

Rothschild Bank (Paris) - in charge of administration
General Secréter - Investment Bank of Crédit Lyonnais, Paris
Former Advisor to the Ministry of Industry chief Scientist in Israel
Director of the Israeli Innovation Institute
Former Chairman of regional subsidiaries of Suez in France & the Middle East.



Prof. Sarit Kraus
Leading AI & ML Advisor

Head of AI & ML field - computer science faculty, Bar-Ilan University
IJCAI Computers and Thought Award winner
ACM SIGART Agents Research award winner
ACM Athena Lecturer, the EMET prize winner
Twice the winner of the IFAAMAS influential paper award.

DISRUPTIVE Water-Tech Innovation systems!



Strong need for various applications for many market segments



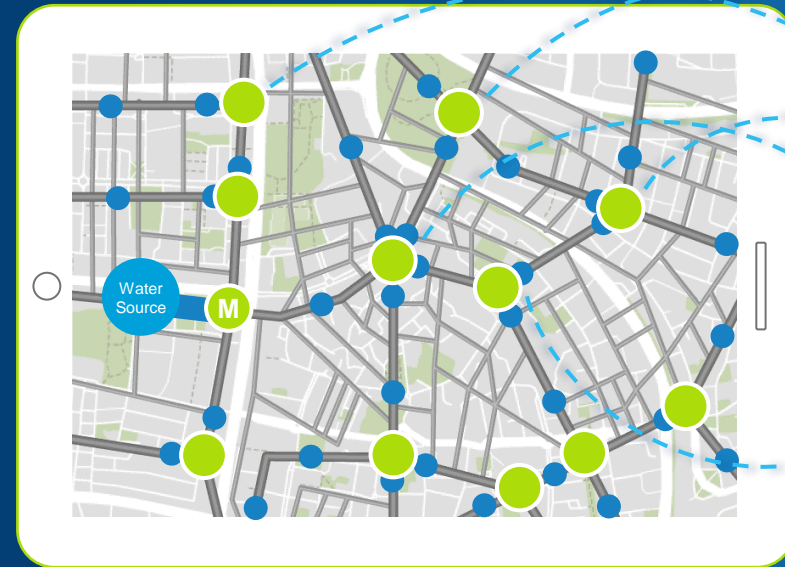
A **sustainable** novel water IoT platform & technology with many functional, financial & social benefits



A **feasible & scalable** technology that can be implemented to many more potential applications



An **experienced team** with expertise in management, technology and marketing to get things done!





Thank you !

Thor Halperin - CEO
(+972) 054-2310455
thor@cywat-tech.com