



# REAL-TIME AI-POWERED WATER QUALITY MONITORING SYSTEM

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TRL-9

# waterly

# WATER POLLUTION IMPACTS

## OUR LIFE | BUSINESS | ENVIRONMENT



### NATURAL ENVIRONMENT DAMAGE

- JAPAN 2024**  
>1100 TONS OF DEAD FISH
- GREECE 2024**  
>120 TONS OF DEAD FISH
- POLAND 2024**  
>200 TONS OF DEAD FISH
- AUSTRALIA 2023**  
>200 TONS OF DEAD FISH
- POLAND 2022**  
>360 TONS OF DEAD FISH



### DRINKING WATER CONTAMINATION

- ITALY 2024**  
>500 POISONED TOURIST
- USA 2022**  
>150K PEOPLE DEPRIVED OF ACCESS TO WATER
- UKRAINE 2022-2023**  
>1M PEOPLE DEPRIVED OF ACCESS TO WATER
- UK 2022**  
>20K PEOPLE DEPRIVED OF ACCESS TO WATER
- DOMINICAN REPUBLIC 2021**  
>120 POISONED PEOPLE, 47 DIED

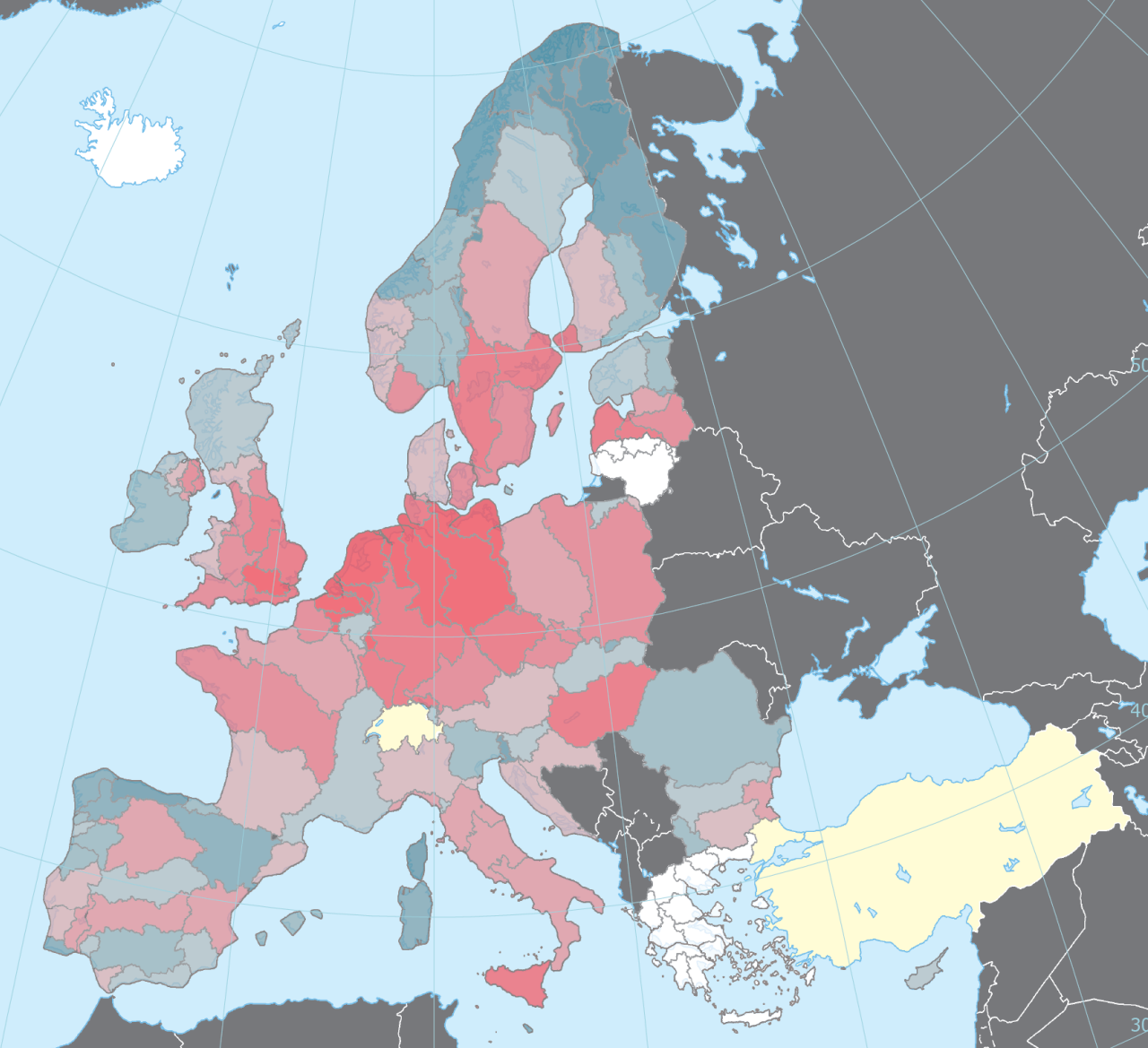


### BUSINESS IMPACT

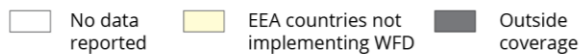
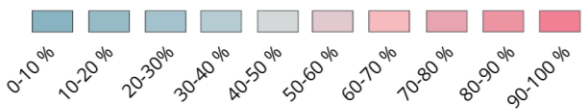
VALUE OF LOSSES

- USA 2025**  
>80 BLN EUR
- INDIA (EVERY YEAR)**  
>1BN EUR
- ITALY 2023**  
>150M EUR
- BELGIUM 2021**  
>600M EUR
- MAURITIUS 2020**  
>37M EUR

\*See notes for sources



Percentage of number of water bodies, not in good ecological status or potential, per river basin district



Note: second river basin management plans



CURRENTLY

**60% WATERS**

IN EU, FAIL TO REACH GOOD ECOLOGICAL STATUS

MOST OF WATER MONITORING IS **OUT-OF-DATE**

WATER FOOTPRINT, ESG

**REGULATIONS ARE COMMING...**

# WATERLY MAKES WATER MONITORING 100% AUTONOMIC AND 25 TIMES CHEAPER

Link to the video

<https://www.youtube.com/watch?v=Kt3hb7rUPc8>



# Hardware Software+AI

25 TIMES CHEAPER

26 000 FREQUENT

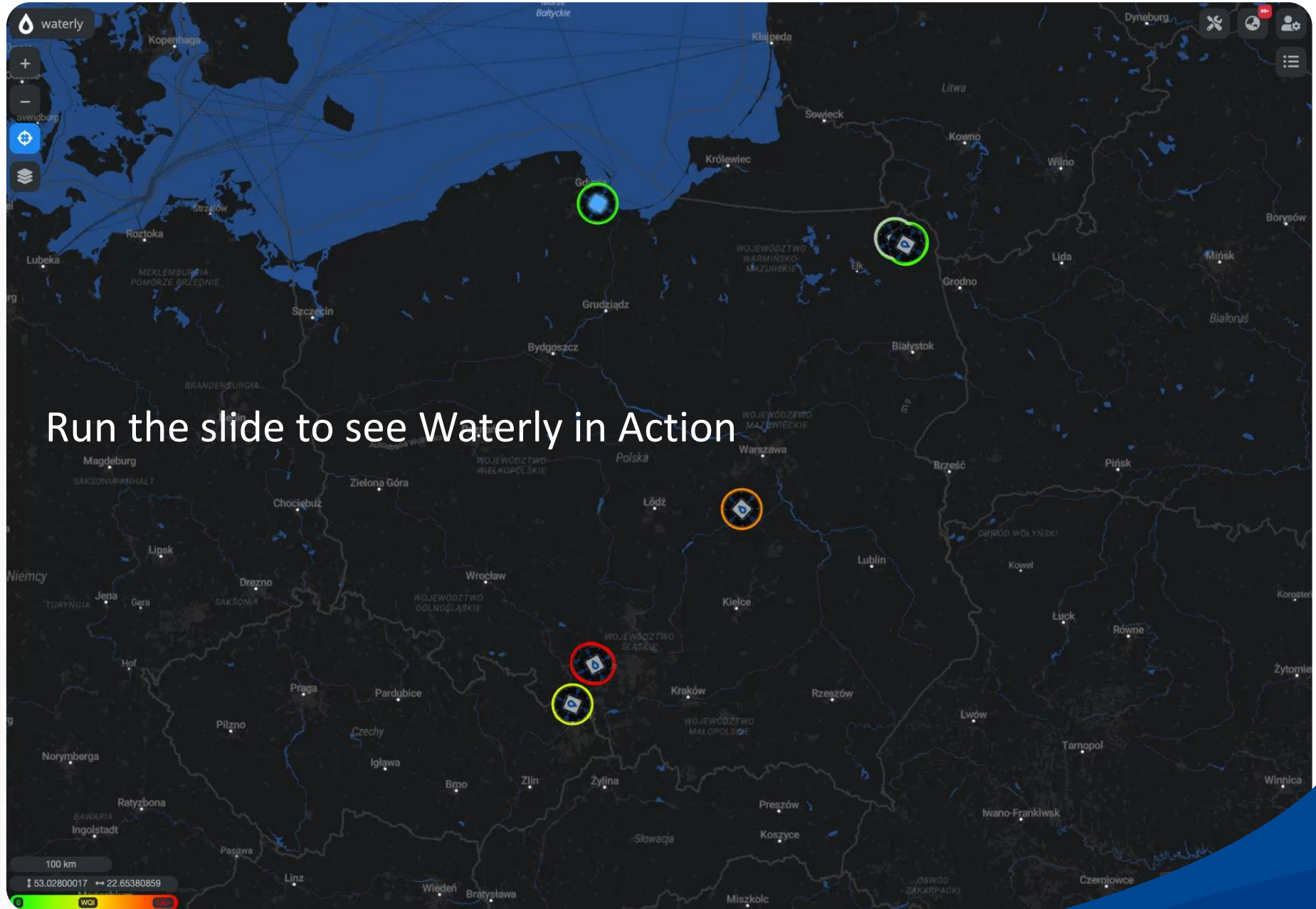
THREAD PREDICTION

IMEDIATE ALERTS

AUTOMONIC

COMPLIANCE

TRL - 9



# MARKET MOMENTUM AND OPPORTUNITY



## UE ENVIRONMENT REGULATIONS

### BLUE DEAL

500 BN EUR FOR WATER RECLAMATION

WATER FRAMEWORK DIRECTIVE

REACH GOOD ECOLOGICAL STATUS BY 2027

URBAN WASTEWATER DIRECTIVE

COLLECTION AND TREATMENT OF WASTEWATER

DRINK WATER QUALITY DIRECTIVE

PEOPLE SAFETY



## CATASTROPHICAL CLIMATE CHANGES

### INCREASE WATER TEMPERATURE

GROWTH OF TOXIC ALGAE

DECREASE PH WATER

IMPACT ON MARINE LIFE

ELEVATED OCEAN LEVEL

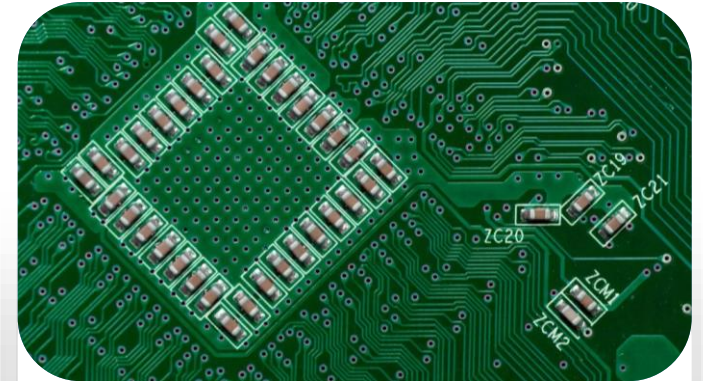
COASTAL FLOODING

MORE FLOODING AND DROUGHTS

HUMAN AND BUSINESS LOSSES

SEASONAL CHANGES

CHANGE OF SPECIES LIFE CYCLE



## TECHNOLOGY MATURITY

### AI & BIG DATA

NEW MODELS AVAILABLE

ULTRA LOW POWER SILICON

ENERGY-SAVING INTEGRATED CIRCUITS

ACCESS COMMUNICATION

CONNECTIVITY WHERE PHONE NOT WORKS

LOWER COST

CHEAPER TECHNOLOGY ALLOWS TO SCALE

EFFICIENT HARVESTING SYSTEMS

EASY ENERGY ACQUISITION

# BUSINESS MODEL

**WATER  
MONITORING  
SERVICE**

**590 USD/MONTH**

Hardware as a Service

**PRICE OF BASED BUOY: 590 USD/MONTH**  
24 MONTHS CONTRACT

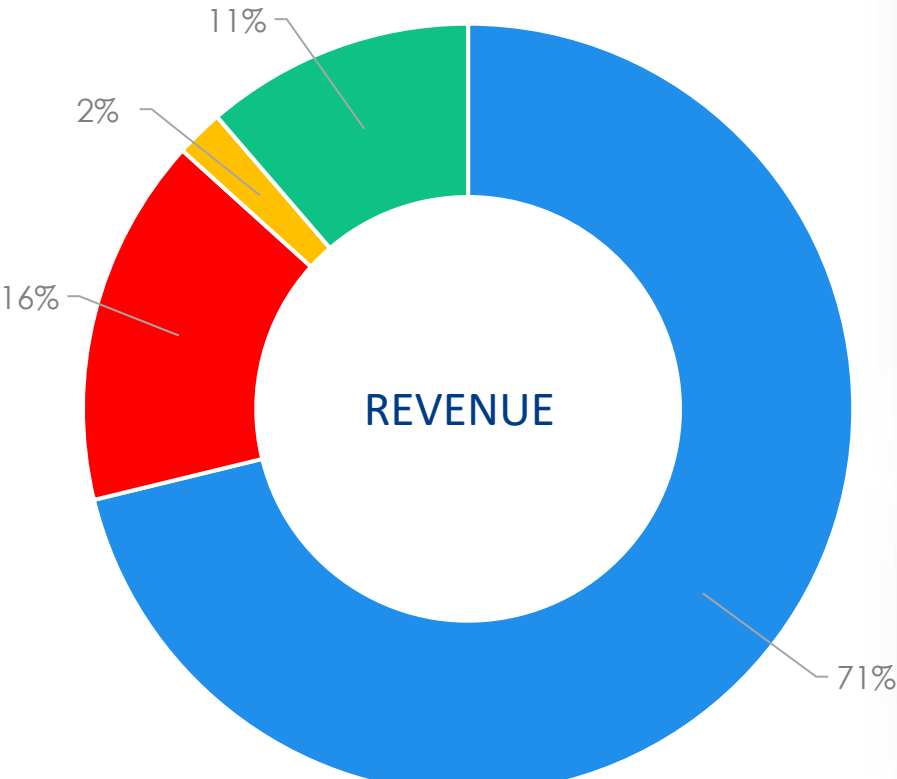
**CUSTOMER USES THE DATA AND  
DOESN'T WORRY ABOUT THE BUOY  
BUOY IS WATERLY PROPERTY**

**DEVICE  
+  
SUBSCRIPTION**

**From 7490 USD  
+  
99 USD/month**

**PRICE OF BASED BUOY: 7490 USD**  
+  
**SUBSCRIPTION: 99 USD/MONTH**

# HOW WE MAKE MONEY



- DEVICE SELL
- MONITORING (HARDWARE) as a SERVICE
- CLOUD ACCESS SUBSCRIPTION
- INSTALL AND MAINTENANCE SERVICES

### B2G

LOCAL GOVERNMENTS	<b>7 ORDERS</b>
POLISH FISHING ASSOCIATION <small>(&gt;3000 lakes)</small>	<b>1 ORDER</b>
NATIONAL/LANDSCAPE PARKS	<b>4 ORDERS</b>

### B2B

FISHING FARMS	<b>5 ORDERS</b>
MINES, FACTORIES INDUSTRY	<b>2 ORDERS</b>
ENVIRONMENT MECENARY	<b>1 ORDER</b>

**>50 000 EUR REVENUE IN 2025**

**500K EUR REVENUE PLANNED IN 2026 (125K SIGNED)**

**FIRST INTERNATIONAL IMPLEMENTATION IN Q1 2026**

<b>WARNING</b>	<b>VERY STRONG UNIT ECONOMICS !!!</b>
<b>WARNING</b>	<b>HIGH MARGIN UP TO 3x !!!</b>

# PAYING CUSTOMERS



## LOCAL GOVERNMENTS GOV INSTITUTIONS MUNICIPAL COMPANIES

SEWAGE MANAGEMENT, GREEN AREA  
MANAGEMENT

MINISTRY OF ENVIRONMENT  
POLISH WATERS  
INSTITUTE OF ENVIRONMENT PROTECTION  
NATIONAL PARKS



## INDUSTRY

### COMPANIES USING WATER IN THE PROCESSES

MINES  
INDUSTRIAL FACILITIES  
POWER PLANTS  
PROCESSING PLANTS  
CHEMICAL PLANTS



## FOOD INDUSTRY

### FISH AND CRUSTACEAN FARMING

CARP FARMING  
STURGY FARMING  
CRUSTACEAN FARMING  
(FRESHWATER AND  
SALTWATER)  
FISHING PONDS AND LAKES



## DUAL-USE

### CRITICAL INFRASTRUCTURE SECURITY

CITY INFRASTRUCTURE  
DRINKING WATER & SEWAGE  
OIL AND POWER PLANTS  
SABOTAGE DETECTION



SZKOŁA GŁÓWNA  
GOSPODARSTWA  
WIEJSKIEGO



UNIWERSYTET  
PRZYRODNICZY  
W POZNANIU



Partners:

waterly.eu

# SOLVING REAL PROBLEMS PGWiR S.A. (JSW) – ODRA RIVER

## „DROP VALVE CONTROL”

SALT WATER DROP RELY ON WATERLY  
MEASUREMENTS AND AUTOMATION

## INTEGRATION

DIRECT INTEGRATION WITH CUSTOMER LEGACY  
SYSTEMS

## TOUGH CONDITIONS

FLOOD 2024 SPOT

## EASE OF INSTALATION

DROP & GO, NO SPECIAL APROVALS REQUIRED



# EXPIRIENCED TEAM



**TOMEK**  
DESIGN &  
CONSTRUCTION OF  
DEVICE ELECTRONICS  
BIALYSTOK UNIVERSITY OF  
TECHNOLOGY  
30 YEARS  
IN IoT



**PATRYK**  
SALES  
R&D  
GDANSK UNIVERSITY OF  
TECHNOLOGY  
12 YEARS IN PROJECT  
MANAGEMENT



**RAFAŁ**  
DATA ANALYSIS &  
VISUALIZATION  
GDANSK UNIVERSITY OF  
TECHNOLOGY  
12 YEARS IN WEB APPS AND  
DATA ANALYSIS



**PRZEMEK**  
SALES & MARKETING  
WARSAW SCHOOL OF  
ECONOMICS  
20+ YEARS IN B2B SALES



# LOOKING FOR A FIRST ROUND (50% already COMMITTED)

**1 MLN EUR**

FOR 10% EQUITY

**BUSINESS PARTNER DEV  
+ ENTERING 2 NEW MARKETS**

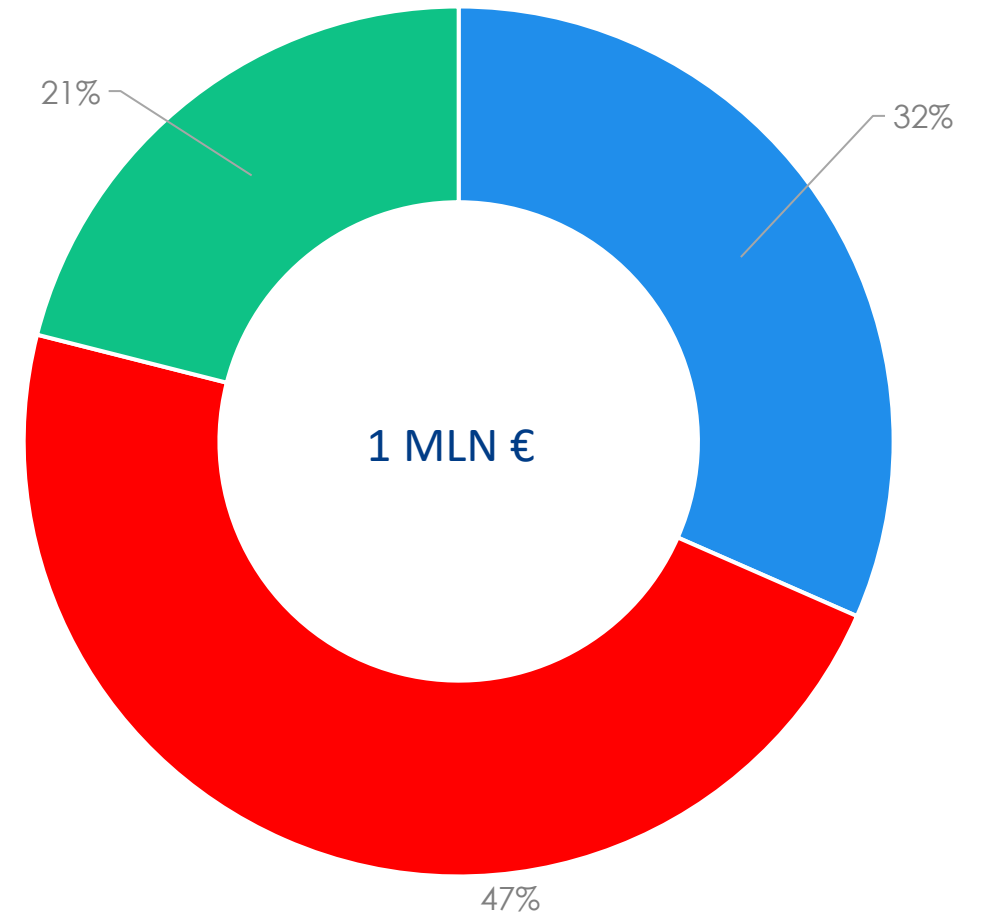
FINDING PARTNERS AND TEST DEPLOYMENTS IN 2 COUNTRIES

LOCAL ENTITIES AND SERVICE SUPPORT

**PRODUCT DEVELOPMENT  
NEW SENSORS & AI DATABASE**

NEW SENSORS & AI PREDICTION MODELS FOR MUCH WIDER APPLICATIONS

PRODUCTION OF ORDERED PRODUCTS



■ PRODUCT DEVELOPMENT ■ SALES ■ PRODUCTION

**Let's take care of the water.  
Together.**



**waterly**

**Waterly Sp. z o.o.**

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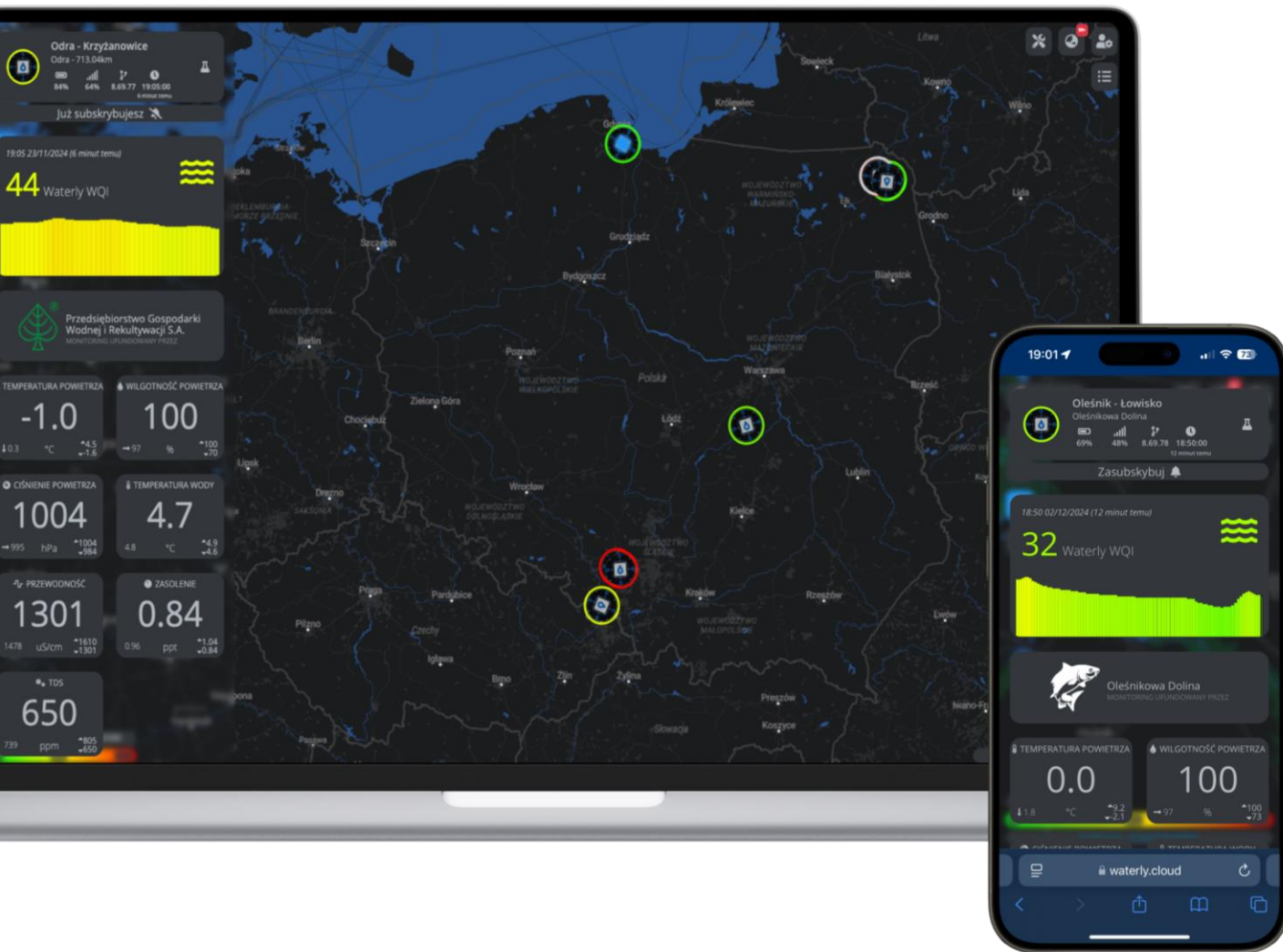
<https://waterly.eu>

**BACKUP SLIDES**



**waterly**

# TRY IT!



## SCAN CODE TO CHECK WATER QUALITY



[WATERLY.CLOUD](https://waterly.cloud)

[waterly.eu](https://waterly.eu)

# AIR QUALITY MAP IN POLAND

**Aleja Niepodległości**  
Warszawa

**48** Airly CAQI (PM)  
Well... It's been better.

Result from 06:00 PM

Source: Główny Inspektorat Ochrony Środowiska

## PARTICULATES

**PM10** 106 % **48**  $\mu\text{g}/\text{m}^3$  +

**PM2.5** 154 % **23**  $\mu\text{g}/\text{m}^3$  +

## GASES

**NO<sub>2</sub>** 168 % **42**  $\mu\text{g}/\text{m}^3$  +

**CO** 18 % **714**  $\mu\text{g}/\text{m}^3$  +

## Air quality forecast for PMs



## Historical data

Airly CAQI (PM) | PM



Add widget to your site  
Configure your widget



# WATER QUALITY MAP IN POLAND

Kraków - Dłubnia  
ul. Melchiora Wankowicza

63% 83% 8.74.102 12:08:00  
13 minut temu

Zasubskrybuj

12:08 08/12/2025 (13 minut temu)

**22** Waterly WQI

**MR CONSULTING**  
MR Consulting  
Środowiskowa sp. z o.o.  
MONITORING URUNDOWANY PRZEZ

TEMPERATURA POWIETRZA

**6.4**  
↑ 2.8 °C ↓ 6.4  
-0.9

CISNIENIE POWIETRZA

**997**  
↑ 995 nPa ↓ 997  
994

PRZEWODNOSC

**639**  
↓ 638 uS/cm ↓ 650  
634

TDS

**319**  
↓ 319 ppm ↓ 325  
317

ILOSC TLENU

**10.9**  
→ 10.8 mg/l ↓ 11.0  
10.7

WILGOTNOSC POWIETRZA

**100**  
→ 99 % ↓ 100  
95

TEMPERATURA WODY

**6.7**  
↑ 6.6 °C ↓ 6.9  
6.3

ZASOLENIE

**0.31**  
→ 0.31 ppt ↓ 0.31  
0.30

ODCZYN PH

**8.48**  
→ 8.47 ↓ 8.49  
8.46

NATLENIE

**91**  
→ 90 % ↓ 91  
89



# HARDWARE | SOFTWARE | AI

**THREAT PREDICTION**

**IMMEDIATE ALERTS**

**COMPLIANCE W/  
REGULATIONS AND  
CERTIFICATIONS**

**AUTOMATIZATION  
API INTEGRATION**



**25 TIMES LOWER COST**

**26000 TIMES FREQUENT**

**MODULAR PLATFORM**

**VANDAL-PROOF**

**DROP AND GO**

**ALL WEATHER**

# DASHBOARD

## EASY INTERFACE

SIMPLE AND CLEAR MEASURING POINT MANAGEMENT SYSTEM

## REAL-TIME DATA

PRESENTATION OF CURRENT VALUES OF MEASUREMENT PARAMETERS

## HISTORICAL DATA

PRESENTATION OF HISTORICAL VALUES IN THE FORM OF CHARTS

## REMOTE SETTING

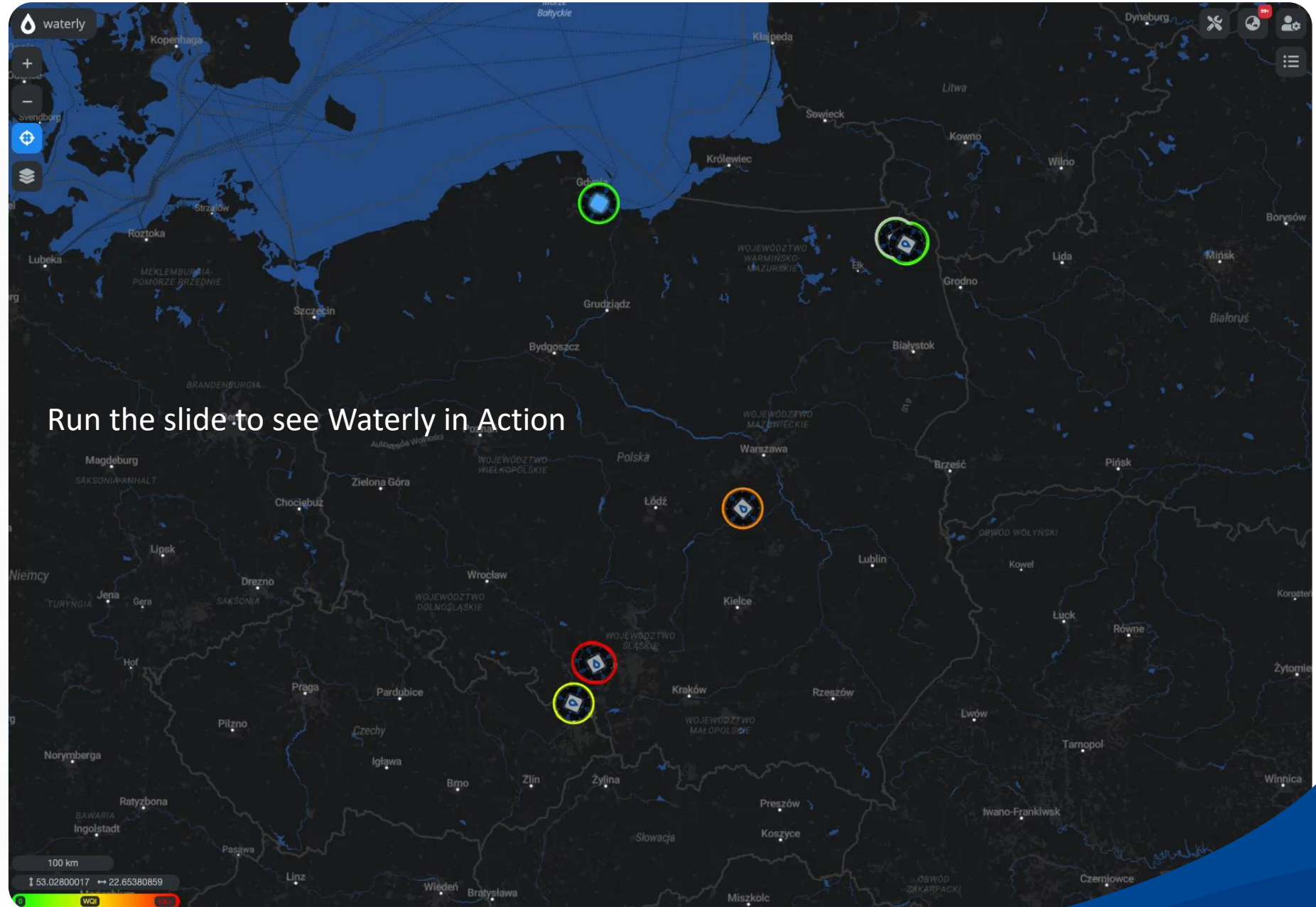
ABILITY TO CHANGE THE SETTINGS OF THE DEVICE WITHOUT PHYSICAL INTERVENTION

## UPDATE OTA

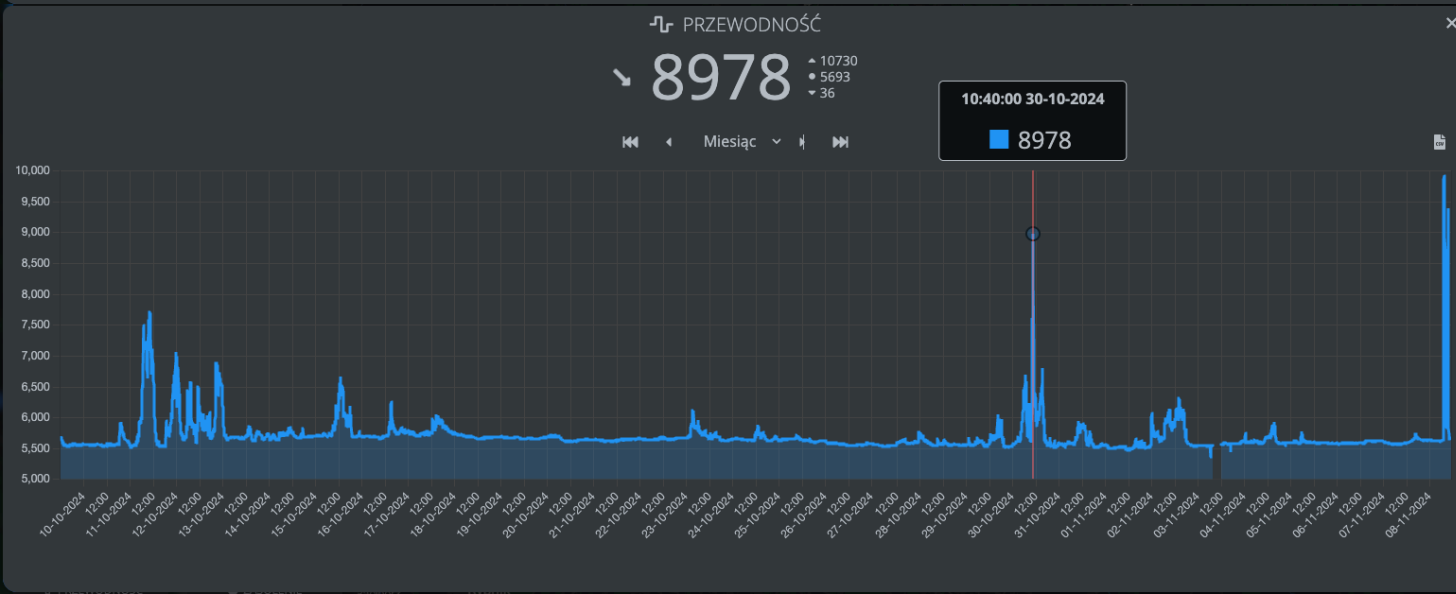
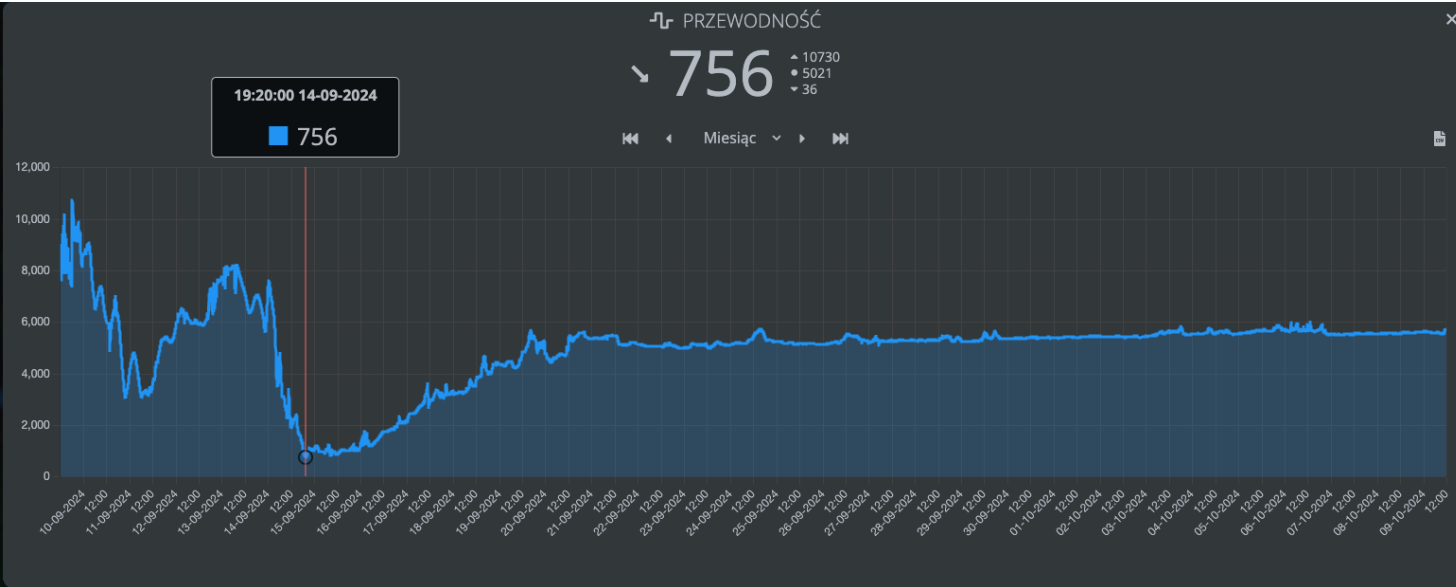
THE POSSIBILITY OF UPDATING THE DEVICE WITHOUT THE NEED FOR PHYSICAL INTERVENTION

## NOTIFICATION

EMAIL AND SMS NOTIFICATIONS OF PARAMETER CHANGES, ALARMS AND EVENTS



# POLISH FISHERMAN'S SOCIETY DZIERŻNO LAKE (AREA OF ECOLOGICAL DISASTER IN 2024)



# PGWiR S.A. – ODRA RIVER

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SALT WATER DROP RELY ON WATERLY MEASUREMENTS AND AUTOMATION

## INTEGRATION

DIRECT INTEGRATION WITH CUSTOMER LEGACY SYSTEMS

## TOUGH CONDITIONS

FLOOD 2024 SPOT

## EASE OF INSTALATION

DROP & GO, NO SPECIAL APROVALS REQUIRED



# DASHBOARD

ZOOM-IN

ACTUAL DATA

PRECISE LOCATION

REMOTE MANAGEMENT

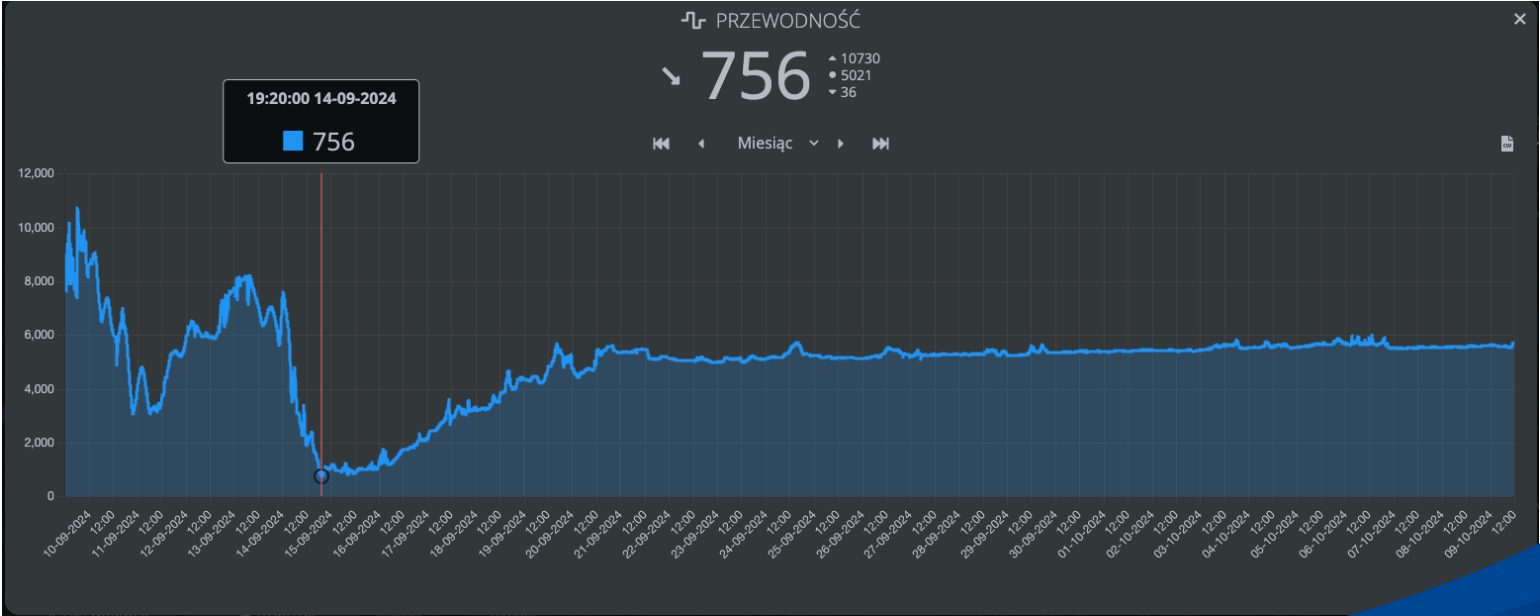


# DASHBOARD

DRILL DOWN  
THRU DATA

PRECISE  
MEASUREMENTS  
CORRELATION

HISTORICAL DATA



# WIDE RANGE OF MONITORING BOOSTED WITH AI

## TEMPERATURE

RANGE FROM 0 TO 60°C  
WITH A RESOLUTION OF 0.1°C

## TANK DEPTH/QUANTITY

RANGE 0 TO 70 m  
WITH A DISTINCTION OF 1 cm

## FLUORIDE, CHLORINE

RANGE FROM 0.02 TO 1000 mg/l  
with a resolution of 0.01 mg/l

## FLOW OF WATER

## CONDUCTIVITY

RANGE FROM 0 TO 100mS/cm  
WITH A RESOLUTION OF 1 uS/cm.

## TURBIDITY

RANGE 0.01 TO 4000 NTU  
WITH A RESOLUTION OF 0.01 NTU

## WATER COLOR

## CALCIUM, POTASSIUM

RANGE FROM 0.02 TO 1000 mg/l  
with a resolution of 0.01 mg/l

## TDS

RANGE FROM 0 TO 9999 ppm  
WITH 1 ppm RESOLUTION

## CHLOROPHYLL

RANGE FROM 0.01 TO 400 ug/l  
WITH A RESOLUTION OF 0.01 ug/l

## WATER HARDNESS

## pH

RANGE FROM 0 TO 14.00 UNITS  
WITH A RESOLUTION OF 0.01

## SALINITY

RANGE FROM 0 TO 40.00 ppt  
WITH DISTINCTION 0.01 ppt

## CARBON DIOXIDE

RANGE FROM 0.02 TO 1000 mg/l  
with a resolution of 0.01 mg/l

## DISSOLVED OXYGEN

RANGE FROM 0 TO 20.00 mg/l  
WITH A DISTINCTION OF 0.01 mg/l

## BOD, TOC, COD

RANGE FROM 0 TO 20.00 mg/l  
WITH A DISTINCTION OF 0.01 mg/l

## NITRATES

RANGE FROM 0.02 TO 1000 mg/l  
with a resolution of 0.01 mg/l

## AMMONIUM ION

RANGE FROM 0.02 TO 1000 mg/l  
with a resolution of 0.01 mg/l

## OIL IN WATER

RANGE FROM 0 TO 50 ppm  
with a resolution of 0.01 ppm

**NEXT PARAMETERS ON THE WAY**

# INTERNATIONAL AWARDS



## WSA WINNER & GLOBAL CHAMPION 2025

ENVIRONMENT & GREEN ENERGY – ONE OF THE 40 WINNERS OF THE WORLD  
GLOBAL CHAMPION 2025 - IN HYDERABAD IN INDIA



## CIRCULATING PRODUCT POLISH MINISTRY OF CLIMATE AND ENVIRONMENT



## POSITIVE IMPACT 2024



## MOBILEHEROES – TAIWAN 2025

WINNER – GOLD MEDAL



## ROOKIE OF THE YEAR INCREDIBLES NOMINATION



## GOOGLE CLOUD

RECOGNITION FROM GOOGLE AND OCHK AND  
NOMINATION FOR LET'S GET (C)LOUD PROGRAM