Sept 2026

The revolution in rapid environmental water quality testing – join the journey

Lakes, rivers, coast



Bactiquick
Real Time Water Testing

Why are we still testing yesterday's water?

Traditional environmental water testing tells you what happened – not what's happening right now

So why record a problem that started two days ago when the risk has already shifted?

Harmful bacteria are invisible
Most tests are limited to what's being tested

Testing takes 24–72 hours
Decisions are delayed while conditions keep changing

Traditional solutions cost £1,000s
Lab infrastructure adds complexity, delay and cost

Historic insight, real-world impact
Cut the cost to public health and tourism

Public confidence in water quality is changing

Poor water quality impacts health, tourism and local economies

Paris 2024 Olympics
Triathletes fell ill after swimming in the Seine's contaminated water

Nazaré, Portugal
100+ people treated after seawater contamination in 2025

United States
90m waterborne illness cases a year, costing an estimated US$2.9bn

Europe
~£700bn of water visits, ~£90bn lost

Sources: Exeter & Stirling 2021; DeFlorio-Barker 2018

Bactiquick:
More testing.
More data.
Better decisions –
in just 15 minutes



The cost of one competitor device = 240 Bactiquick tests

Fastest
Results in just 15 minutes

Most cost effective
£300 device – £28 per test

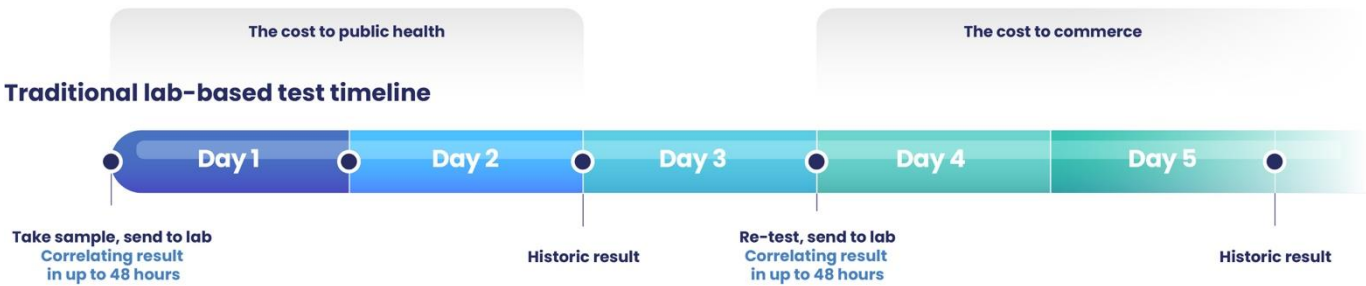
Handheld
Fits in one hand, test anywhere

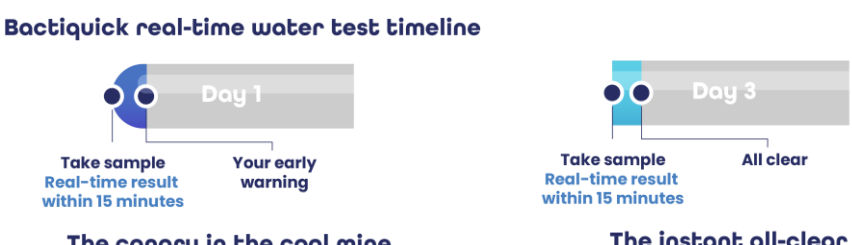
No lab needed
Sample and analyse on site

Easy to use
No training, no technicians

Case study: 400 of Michigan's 1,200 beaches, 2027 season

Why timing and cost matters





Save days and expensive lab trips using this screening tool

The lab in your pocket

Clear, easy-to-understand results

Results are displayed using a simple traffic-light system.

Green

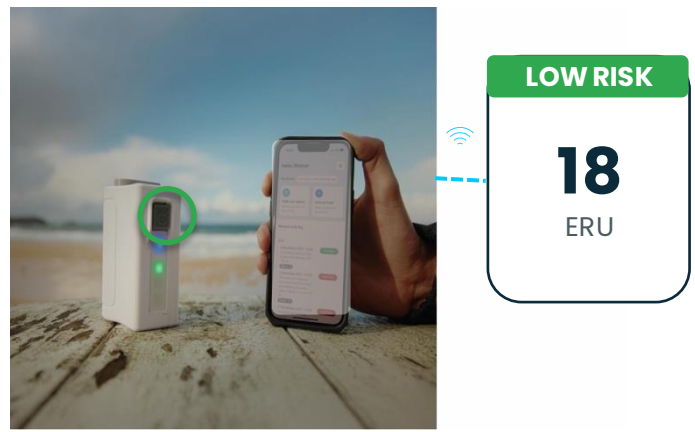
Low levels of bacteria
(Low risk)

Orange

Moderate bacterial concentration
(Medium risk)

Red

High bacterial concentration
(High risk)



Additionally, the actual numerical value is obtained by Connecting to the Bactiquick App, which also provides location data and is freely available for Apple and Android phones.

*The threshold for the risk levels are based on local bathing water standards for *E.coli.*

Traffic light on the device
Instant green/orange/red result on site

Numerical value via Bluetooth
Read exact count in the app

PROVEN AGAINST THE LAB – The Pilot Pack

Bactiquick results correlate with traditional lab testing

The evidence

Thousands of paired results
Run side by side with accredited labs

Many labs, many sites
Independent labs in several countries

Sequencing and culturing
Confirmed by two reference methods

Pilot service: prove it on your own water

- Run your first tests beside your existing lab
- Paired-result correlation report per site
- Fixed-price starter pilot, results in two weeks

On the EPA register in 40 US states (2027) as a screening product

Bactiquick alerts to the presence of :

E. coli	***Legionella***	***Vibrio***	***Pseudomonas***

The solution

Real-time testing
in just 4 steps



1 | Collect
Take a water sample.



2 | Prepare
Dilute the sample and combine with the Bactiquick reagent.



3 | Analyse
The device heats the sample to 37°C / 98.6°F while detecting endotoxin as a biomarker of Gram-negative bacteria.



4 | Results
A colour change reaction is converted into an electrical readout indicating the concentration of bacteria present.
.

The opportunity

Turning real-time testing into real-world intelligence

Yesterday to today to tomorrow



Water Intelligence Network

The future of water quality isn't just proactive — it explains why we get that result

Introducing WIN
The Water Intelligence Network: real-time insight to optimise safety

Connected environmental insight
Monitor trends across beaches, rivers and lakes

Predictive modelling
AI models drawing on multiple data sources

World-leading team
Scientists, engineers, R&D and a global distributor network

WIN – PREDICTIVE

Tomorrow's water quality, forecast today

Day 1 — Tomorrow GREEN

88% probability water is low risk

Day 2 — In two days ORANGE

61% probability water is medium risk

Why the forecast says this

- Storm events and rainfall run-off
- Tidal state and currents
- Satellite imagery of the water column
- Livestock and wildlife movements
- Weather: temperature, wind, UV
- Sewage and storm-water outflows
- Sea temperatures

Illustrative output — probabilities shown are examples of the model's 1 and 2-day forecast

Our journey

Technology timeline

Yesterday

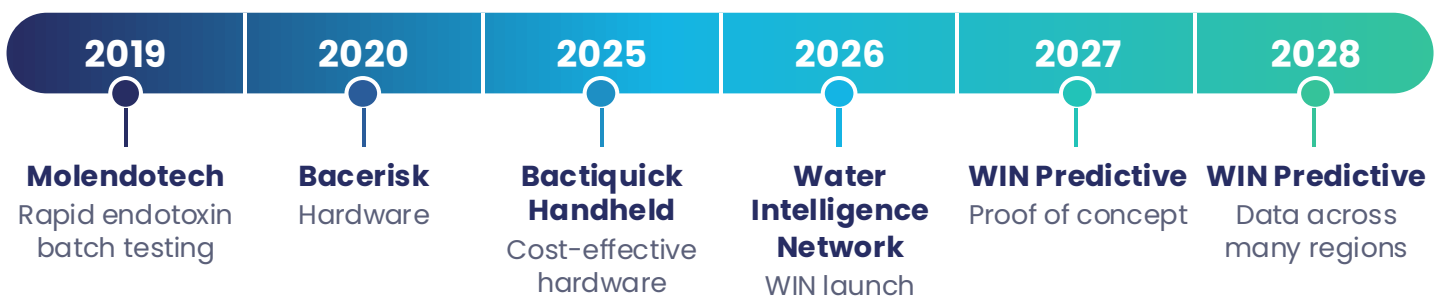
Traditional lab-based test results — slow

Today

Bactiquick real-time testing, building the Water Intelligence Network

Tomorrow

Predictive intelligence

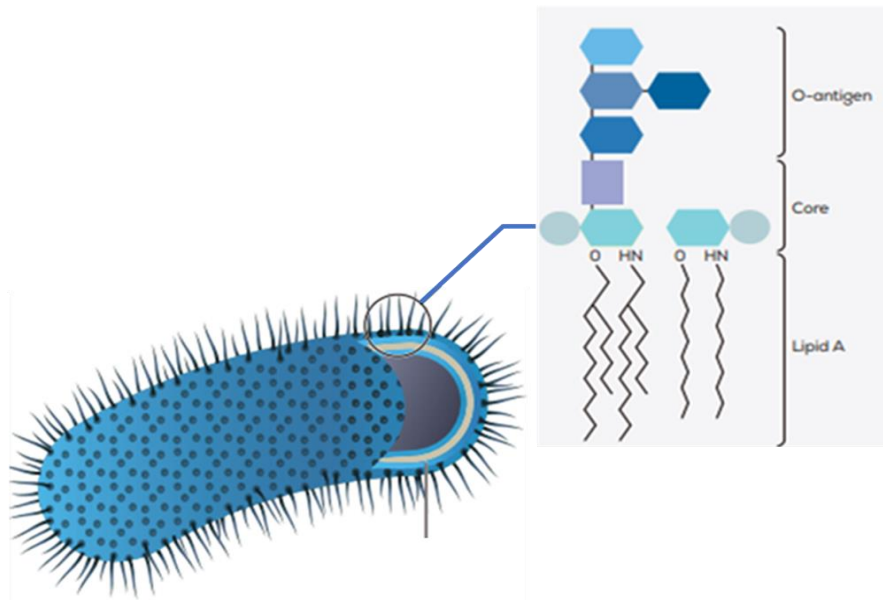




Bactiquick:
How does it work?

How it works

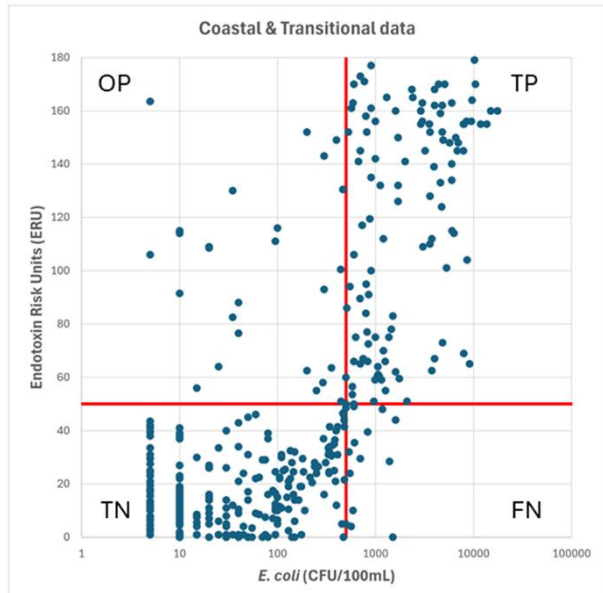
- Enzymes bind endotoxin (LPS) on bacteria
- This triggers a colour reaction — no waiting for cells to grow
- The signal becomes a result (ERU) in ~15 minutes
- Patented technology, fully owned by Molendotech



Bactiquick binds endotoxin (LPS) on the bacterial surface

Bactiquick vs current bacteria testing

	Lab-based	Bactiquick
Time	>24 hours	**15 minutes**
Bacteria detected	*E. coli* & Enterococci	**Broad range incl. *Salmonella, Pseudomonas, Vibrio***
Operation	Specialist staff & equipment	**Anyone, anywhere**



Bactiquick tracks lab *E. coli* results in coastal & transitional water (N=244)

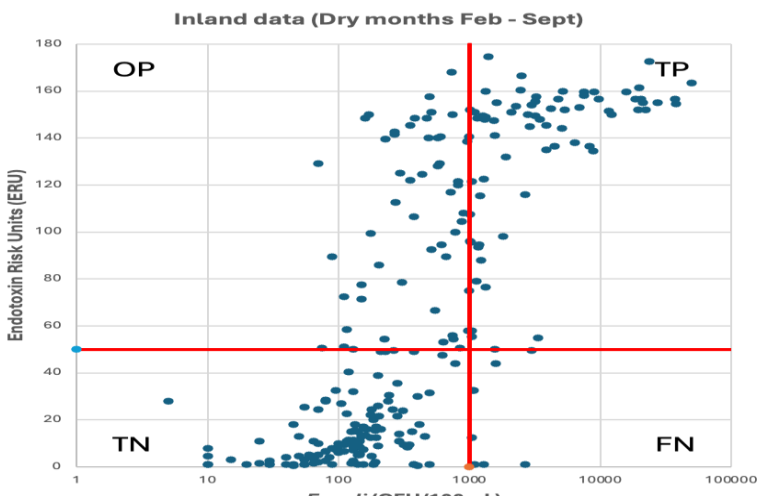
Each point = one sample. TP true positive · TN true negative · FN false negative · OP off-target positive.

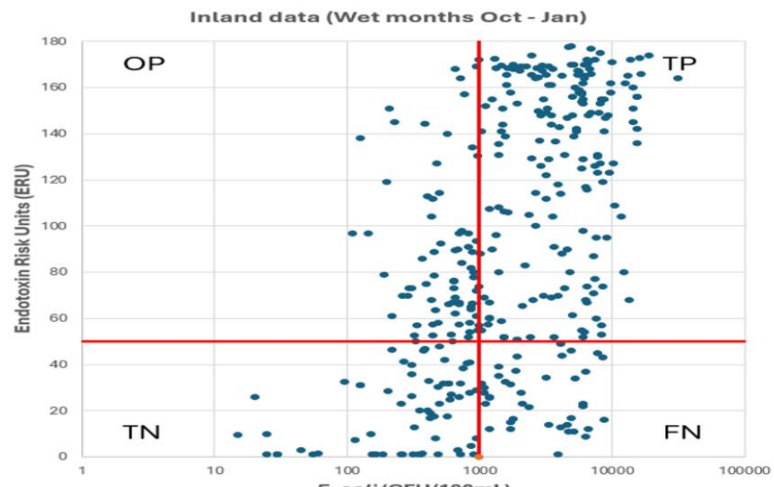
Note: *OP - The Endotoxin risk value would also capture Gram-negative pathogens other than *E.coli*, therefore standing as a better generic risk – assessment test for Water Quality Testing

The science

Bactiquick sampling:
Inland data

Across both seasons, most samples fall in the true-positive and true-negative quadrants — Bactiquick agrees with the lab.





Each point = one sample. TP true positive · TN true negative · FN false negative · OP off-target positive.

Why fast results are vital: ‘Poor’ beaches can be low risk for swimmers

Dunster Beach (Sept. 2025):
A beach with a poor water quality rating was tested as low risk

Impact:
Bathing waters should be tested on a daily basis with rapid test results

“It is time for the Government to step in and require water companies to carry out more frequent, real-time tests. ***Every coastal community should have access to one of these devices.***”
Rachel Gilmour MP



The science

When is a beach good to use?



The value of frequent real-time testing

Case study:
A beach is closed due to historical data when the actual water quality was good

Impact:
Unnecessary commercial losses



The difference:
The broader biological target

Culture-based methods mainly target:

E. Coli | coliforms |enterococci

Bactiquick detects endotoxin from Gram-negative bacteria broadly, including:

E. coli | *Pseudomonas* | *Vibrio* | *Salmonella*

This means a broader hazard coverage for recreational waters



Validation and adoption

Working with leaders across the water ecosystem

Regulators & policymakers
- EPA validation pending in four US states
- Engagement with the EA
- Parliamentary support via MP rallies

Water utilities
- Working with 8 UK water companies
- Real-time monitoring applications

Global distributors
- Partners in the UK and USA
- Expansion into Canada & Japan
- European market development

Environmental organisations
- Citizen science partnerships
- Conservancy wetlands monitoring



Driving validation, collaboration and real-world impact

Global distributor network

Bactiquick is available in the UK, North America and Southern hemisphere through authorised distributors



Simplex Health Ltd
Nationwide distribution

+44 1933 664746 · info@simplexhealth.co.uk
www.simplexhealth.co.uk



Metlab Supplies Ltd
Water industry distribution

01244 526300 · sales@metlabsupplies.co.uk
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Thank you

Ready to join the revolution in global water testing?



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Bactiquick
A MolEndoTech product

May 2026

Appendix



Bactiquick

Real Time Water Testing

The Bactiquick device:
Technical specifications

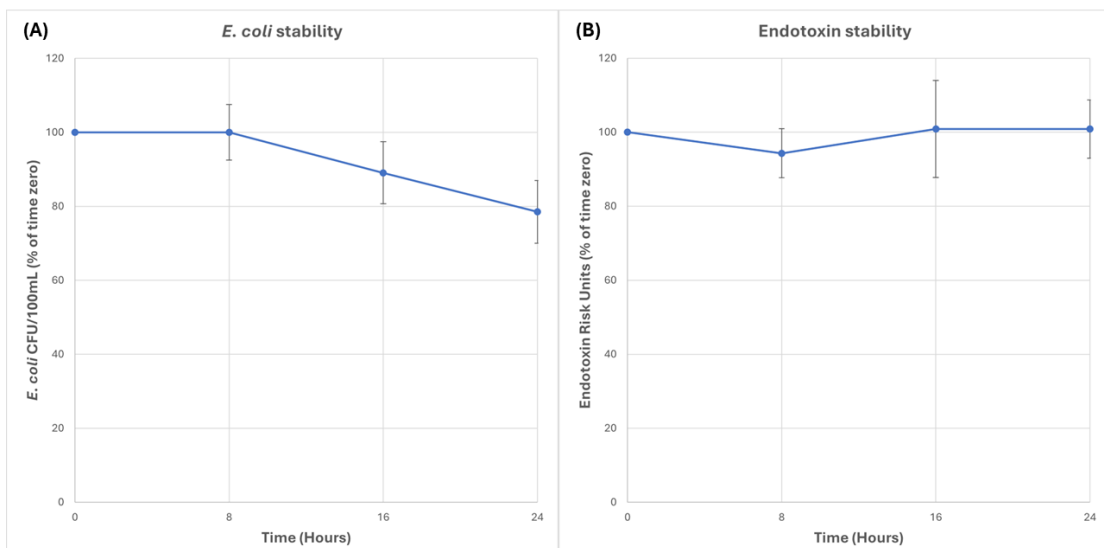
Model	Bactiquick Version 1
Dimensions	104 x 80 x 51 mm
Weight	260 g
Materials	Case: PETG
Power source	Lithium-Ion battery
Battery capacity	2600mAh, 9.6Wh
Battery voltage	3.7V
Input	USB-C, 5V 1A
Operating temperature limits	Min: 0°C, Max: 37°C
Measurement range	0 – 255 ERU
Regulatory & Compliance	CE, UKCA
Warnings	High intensity ultraviolet light. Do not disassemble
Connectivity	Bluetooth low-energy radio

Stability of the samples - Endotoxin is more stable than *E. coli* in a water sample.

Endotoxin is more stable than *E. coli* in a water sample

Environmental water sample stability stored at 2 - 8°C. The amount of (A) *E. coli* and (B) endotoxin was measured by membrane filtration and Bactiquick, respectively, at 0, 8, 16 and 24-hour time points.

Each data point represents the mean of 6 different environmental water samples ± the standard error of the mean (2 fresh water, 2 estuarine and 2 coastal water samples).



Publications

1. Sattar, A.A.; Jackson, S.K.; Bradley, G. The potential of lipopolysaccharide as a real-time biomarker of bacterial contamination in marine bathing water. *J. Water Health* **2014**, *12*, 105–112.

2. Sattar, A.A.; Good, C.R.; Saletes, M.; Brandão, J.; Jackson, S.K. Endotoxin as a Marker for Water Quality. Int. J. Environ. Res. Public Health 2022, 19, 16528

3. Good, C.R.; White, A.; Brandao, J.; Jackson, S. Endotoxin, a novel biomarker for the rapid risk assessment of faecal contamination of coastal and transitional waters. J. Water Health 2024, 22, 1044–1052.

4. Good, C.; White, A.; Brandão, J.; Seymour, C.; Jackson, S.K. Water Quality Assessment: Endotoxin Brings Real-Time Measurements and Non-Faecally Transmitted Bacteria to the Table. Water 2025, 17, 1674.