



# PANDa

WATER ANALYSIS REVOLUTIONISED



## PANDa: a fully automated field analyser

to detect **micropollutants** in water via microfluidics. PANDa is able to detect trace metals such as arsenic from **1 ppb \***. Other metals such as lead, chromium or mercury will be launched shortly.



The analyser works like a printer with a **specific cartridge** per analytic parameter.

It can analyse **4 different samples** with **3 replicates per sample** in the same cycle.

### "Lab-on-a-Chip" technology

The "Lab-on-a-chip" is at the heart of the PANDa analyser. Its underlying scientific principle is **electrochemical analysis**.



### Reliability, simplicity, speed & economy

-  **Speed – Analyse & take action:** Results in real time for quicker decision making
-  **Economy – Analyse & save:** Less maintenance costs & No budget for training
-  **Reliability – Inject & be sure:** Exact results & Minimal error margin +/- 1 ppb
-  **Simplicity – prepare & go:** 100% automated & No specific skills, no training required

### Applications



*Drinking water*



*Natural / ground water*



*Process water*

## Advantages



**Before the analysis...**

Just 2 minutes to fill the sample reservoir(s)



... During the analysis the system works in autonomy...



**Quick Cycle:**

Result in 30 mins  $\uparrow\downarrow\leftrightarrow$  a threshold



**Complete Cycle:**

Result in ~150 mins & Concentration value in ppb

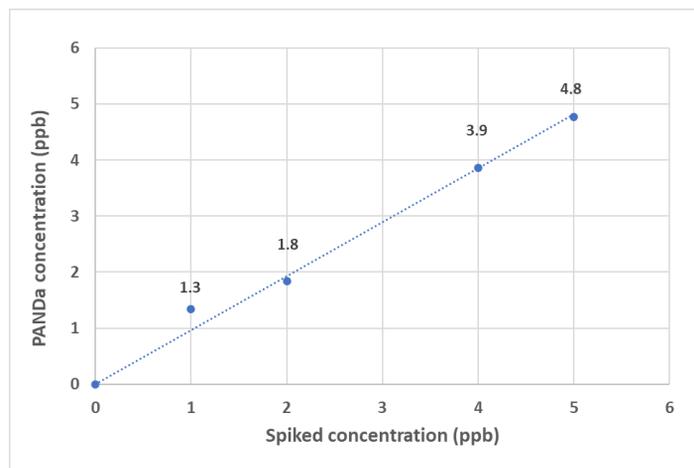
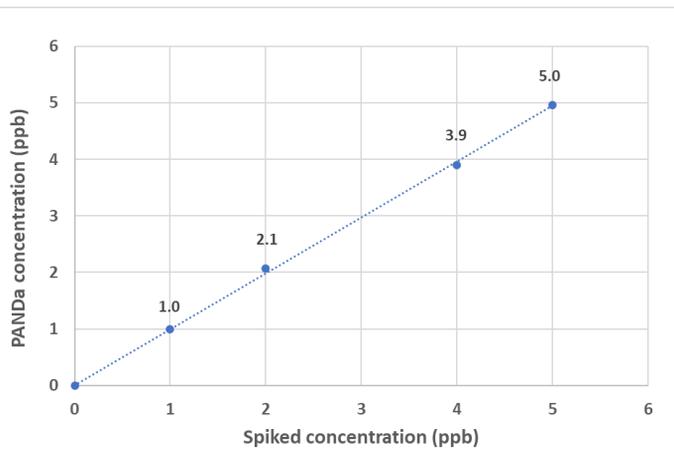


**After the analysis...**

The system proceeds to an auto-clean.

## Proof of Performance

		PANDa	ICPMS conventional lab
Contaminated site (Anonymous)	Site 1	19.1	20.3
	Site 2	82.5	85.4
	Site 3	27	28.1
Bottled water (Anonymous)	Sample 1	2.7	2.2
	Sample 2	39.6	46.34
	Sample 3	35.2	36.02
	Sample 4	5.9	5.71
	Sample 5	2.9	1.76



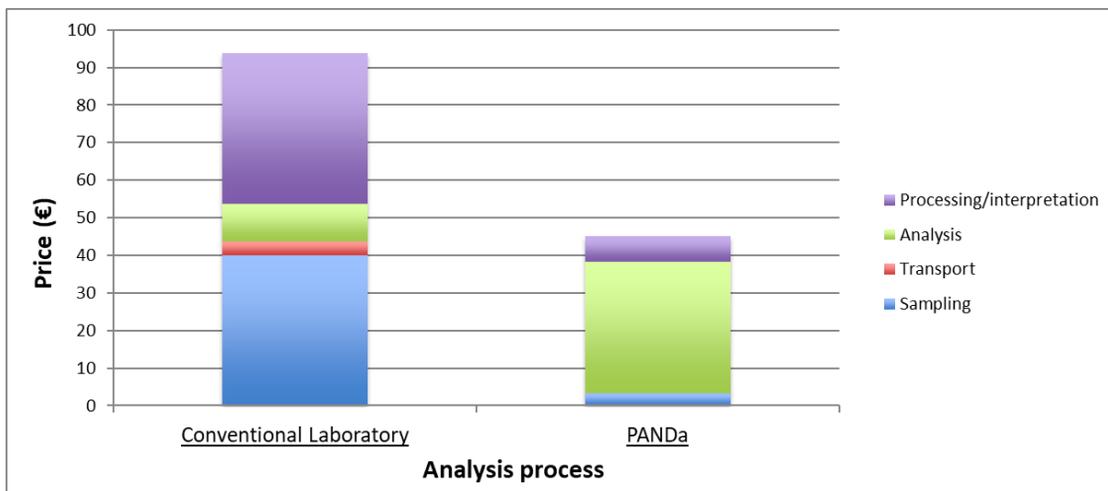
PANDa concentration Vs low spiked concentration with Arsenic in EVIAN (right) and VOLVIC (left) water

Deviation < 1 ppb





The low cost of analysis make the PANDa analyser unique



Cost comparison laboratory vs. PANDa

### Testimonials

*What is the main advantage of the analyser for you?*

*“Its simplicity of use”*

*How does the PANDa analyser make your day-to-day operations easier?*

*“As the value in arsenic varies for the 10 boreholes, using the PANDa analyser I would **immediately know if I am within the norm or not** for the distributed water.”*

*How will the use of the PANDa analyser help you in your day to day operations?*

*“Using PANDa, we will not only be able to **simplify**, but also to **reduce the time needed** for the analysis as it can be done **locally** and in real time”*

*What is the main advantage of the PANDa analyser for you?*

*“What is particularly interesting for us with PANDa is the **responsiveness** we will obtain by getting **access to the result in real time**”*

*Are there any other factors that you appreciate with the PANDa analyser?*

*“Using PANDa, once we have reached a certain limit we will **decide to renew or not to renew our filters**. This way we will be able to **make considerable savings**”*



**Jean-Yves LE CORRE**

Drinking water operator  
(Feb. 2020)



**Olivier BETTON**

Water quality manager  
(Oct. 2019)

