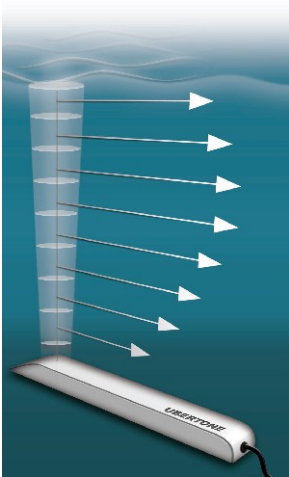


Ultrasonic measurements in liquids

UBERTONE develops and sells innovative ultrasonic measurement instruments. Combining techniques coming from medical imaging and oceanography, they allow the users to precisely visualize the **velocity distribution** across the flow, thereby ensuring better knowledge and control of the processes.



Advantages

- Flow rate measurement **accuracy** improvement, especially in pipes and channels with complex geometry
- High **resolution** velocity profile which enables fine view of the flow field
- Wide particle size range sensitivity
- Robust and autonomous instruments
- Flexible and easy to install devices

Applications

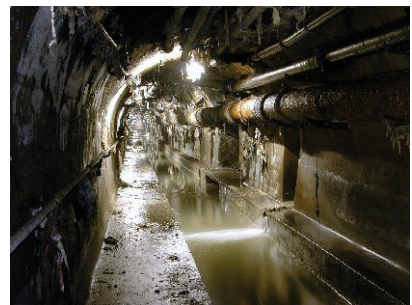
Laboratory

- **Fluid mechanics** research (hydrodynamics, turbulence, solid transport, etc.)
- Pump and **turbine** optimization
- Experimental validation of civil structures
- Boundary conditions for numerical modeling



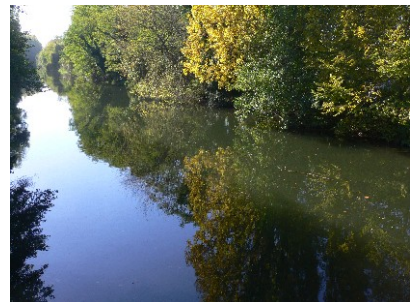
Sewerage and Wastewater treatment plants

- Network diagnosis
- In-situ **flow meter** calibration
- Combined Sewer Overflow (CSO) assessment
- Sediment transport in a **primary clarifier**
- Process control in an aeration tank
- Suspended **sediments concentration** measurement by acoustic turbidity



Rivers and Open Channels

- Hydraulic characteristics
- **Sediment transport** studies
- Erosion process tracking
- Large scale structures observation



Technology

- Pulsed ultrasounds
- Wide frequency range for particle size selectivity
- Doppler based measurements
- Acoustic turbidity (analysis of the backscattered echoes from the suspended particles)
- Multi-beam profile measurements (cells distributed along narrow ultrasonic beams)

Our Products



UB-Flow : the high resolution profiler for field applications

Easy to install, the UB-Flow profiler is particularly suitable for **urban, industrial** (open channel, sedimentation tank, mixing tank, etc.) or **natural flows**. It is the only profiler designed to give measurements of 2.5 mm spatial resolution, and will enable you to **precisely** observe the velocity field within a few meters. The electronics and the transducers are integrated in a waterproof enclosure, making the UB-Flow a compact scientific instrument for measurements in harsh environments. Furthermore, it breaks new ground by giving access to **acoustic turbidity** through ultrasonic energy backscattered by the suspended particles.



UB-Lab : the versatile ultrasonic profiler for laboratories studies

Designed to perform measurements on **laboratory setup** or **industrial pipes**, the UB-Lab profiler can control a wide variety of external transducers (emission frequencies from 700 kHz to 7.5 MHz). This scientific instrument fulfill a large range of applications.

Our Core Activities

- Design, manufacture and sale of ultrasonic measurement instruments
- Instruments rental
- Measurement services, data analysis, metrology consulting
- Custom developments (systems, transducers, etc.)
- Training courses in ultrasonic and flow measurement techniques

