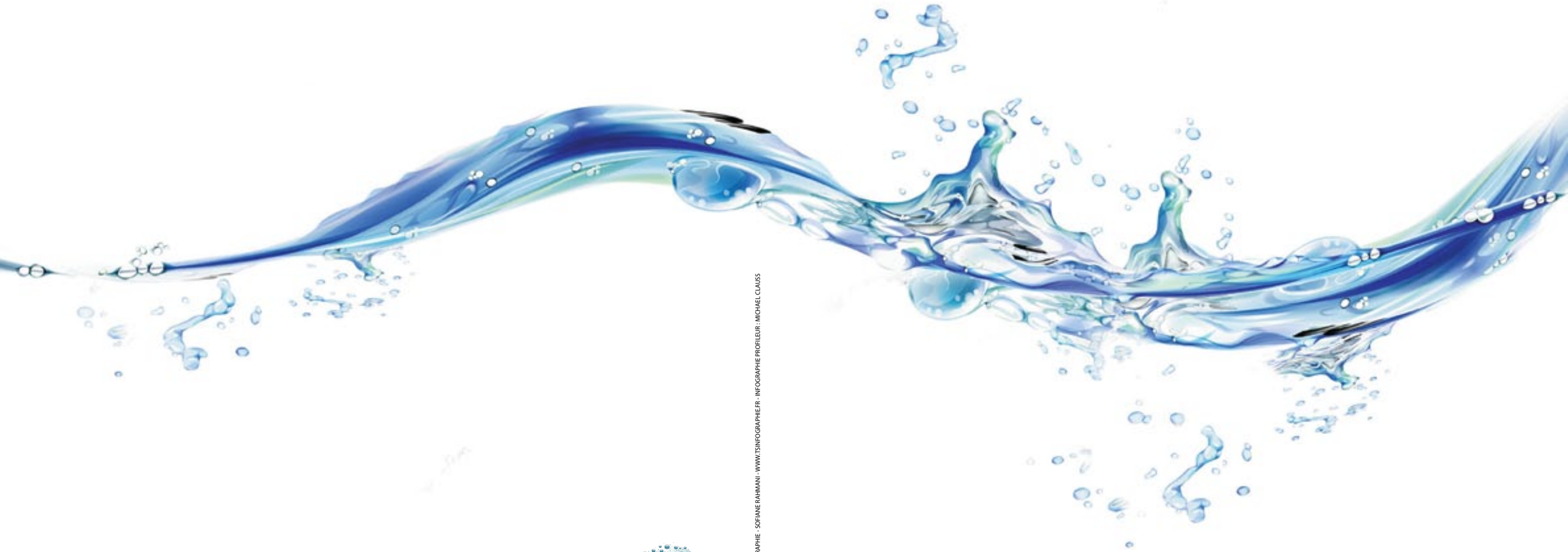
Ultrasonic measurements in liquids



THIERRY SCHMITT INFOGRAPHIE - SOFIANE RAHMANI - WWW.TSINFOGRAPHIE.FR - INFOGRAPHIE PROFILEUR : MICHAEL CLAUSS

UBERTONE

11 rue de l'Académie
67000 STRASBOURG
FRANCE
Tél. +33 (0) 3 67 100 883
E-mail : info@ubertone.fr

www.ubertone.eu

SEMIA
INCUBATEUR D'ALSACE

This booklet has been prepared with the support of SEMIA, incubator of innovative companies in Alsace.

UBERTONE

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

Velocity profile

Acoustic turbidity

Water level

Flow rate

Concentrations

ultrasonic measurements in liquids

Advantages

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

Applications

Laboratory

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

Rivers and canals

- Hydraulic characteristics
- Sediment transport studies

Sewerage

- Network diagnosis
- In-situ flowmeter calibration (even during stormwater)
- Combined sewer overflow (CSO) assessment

UBERTONE

- ➤ Design, manufacture and sale of ultrasonic measurement instrument
- ➤ Instruments rental
- ➤ Measurement services, data analysis, metrology consulting
- ➤ Custom developments
- ➤ Training courses in ultrasonic and flow measurement techniques

Technology

Pulsed Ultrasounds

- ➤ Wide frequency range (1 to 10 MHz)

Measurements by Doppler

- ➤ Analysis of the backscattered echoes from the suspended particles
- ➤ Multi-beam profile measurements (cells distributed along narrow ultrasonic beams)

Interfaces

- ➤ Embedded dynamic WEB (instrument setup, real-time plot, data download)
- ➤ Communication protocols and power over Ethernet bus