Water network

monitoring solutions

for all applications

iJiNUS GROUPE CLAIRE

FAST GROUPE CLAIRE

WAYVE GROUPE CLAIRE

claiRE

Claire Group

a trusted partner

of players in the water industry
serving **network performance**

Our companies are there for you at every key stage in the life cycle of water networks:

to design **innovative** robust **products** from noble, durable materials, to *make sure installed systems last*

to develop **instrumentation systems** incorporating the latest technology in compact meters to ensure *accurate monitoring* of sensitive points in the network

to preserve Water resources

to facilitate maintenance and *improve the management of networks* using **remote surveillance software** to monitor critical points

and to enable clients to *detect and repair leaks* in their networks with the aid **of complementary equipment** that ranges from highly intuitive to highly specialised

claiRE

Claire solutions,
in all contexts,
to respond to your needs and challenges

As a benchmark player at the European level in improving the performance of water networks, the Claire group draws its know-how and its authoritative status from its history.

180 years of expertise

> 320 employees

Present in **> 40** countries

8 logistics centres,
6 of which include production

€115 million in annual revenues

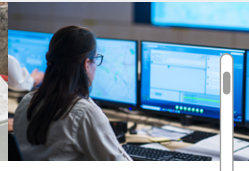
Whatever the context of your project, Claire adapts to every situation.

Depending on your requirements, your practices or the issues you face, its positioning as **water industry specialist** allows it to **offer you the best solution.**

Designer
Manufacturer
Industrialist





Preserving Water resources, thanks to connected water networks

Connected water networks open the way to new services and offer innovative tools to support energy transition in local areas.

What is a connected water network?

A water network consists of a set of pipes and items of equipment organised so as to allow water to circulate and be distributed in optimal sanitary conditions to end users and to be treated in compliance with the environmental regulations in force. The distribution network is huge, and the pipes and fittings are buried. Various things can happen while the water is running through this network, causing wastage of resources.

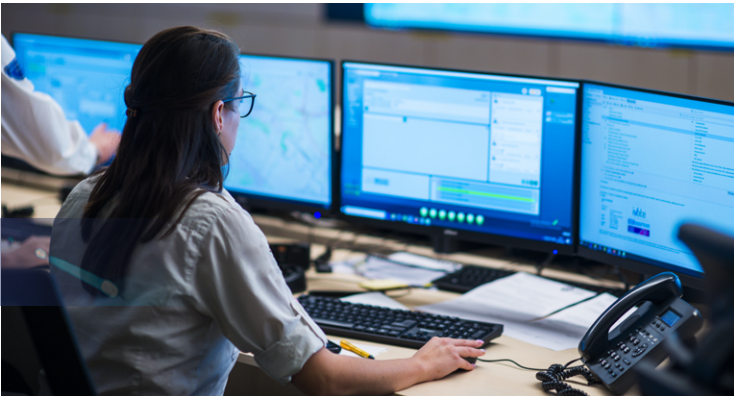
Digital surveillance serving operators

Anticipating high and low water levels, uncertainty as to whether valves are in the open or shut position, difficulties in pinpointing leaks and obtaining quality data, self-monitoring of waste water networks, measuring discharges into the natural environment - all these are among operators' ongoing concerns. By installing autonomous, connected sensors and loggers at strategic points in water networks (e.g. valves, fire hydrants, pipes, spillway gates and waste water treatment plants) we show you things that were previously invisible, providing **permanent surveillance and diagnostics**.

To prevent losses and failures, the whole cycle of network water can be monitored remotely with smart technological solutions. This is what is meant by connected water networks.

A connected water network;

how does it work?



The role of sensors and loggers

Sensors and loggers **collect performance data** of a connected water network, either on site by radio or remotely. They are connected to a mobile application and to a supervision platform for diagnostic analysis. Hydrophone sensors detect any leaks in the networks. Other types of sensors measure the internal pressure, the temperature, the level and the flow of water. The logger, which stores the data, automatically transmits them to the remote connected server, which proceeds to process them.

These systems, which allow metered data to be collected, use **a variety of different means of communication (radio, 2G/4G, LTE-M, NB-IoT and LoRa)**.

NB-IoT LTE-M LoRaWAN

Going further thanks to remote control

Connected solutions allow operators to optimise their operating costs and to act quickly in the event of any anomaly. Their value lies both in the wealth of data collected for analysis and in the possibilities for **transforming networks into sustainable sources of supply**.

Our entities:

WATER as a calling,
know-how as wealth

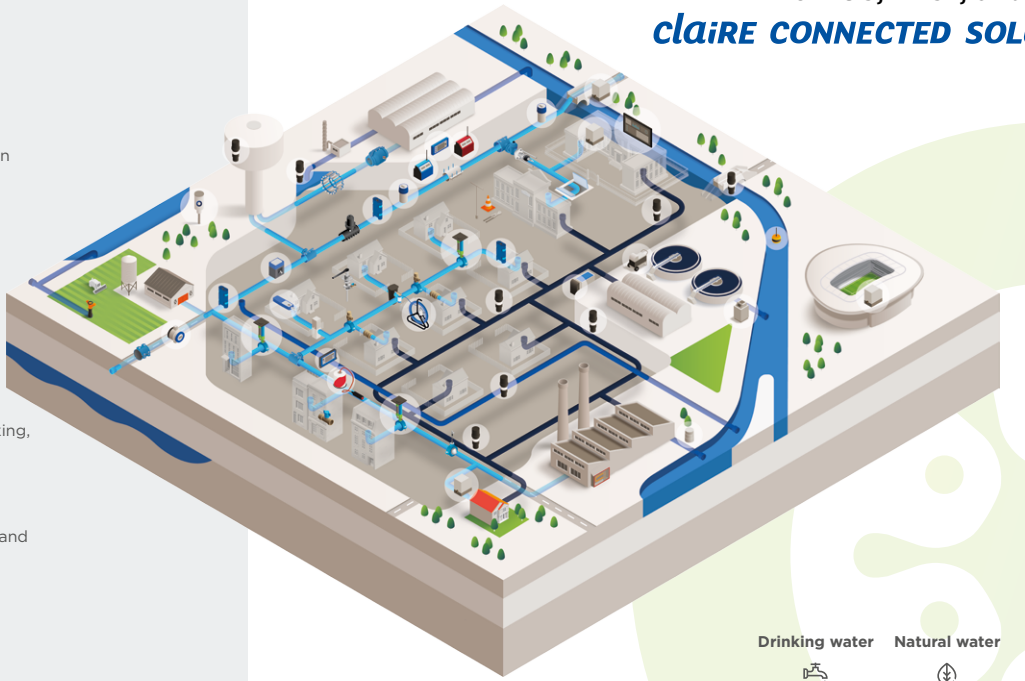
claire

- **SAINTE-LIZAIGNE** GROUPE CLAIRE
  Equipment and management for the drinking water network and irrigation
- **E.I.E** GROUPE CLAIRE
  Intervention solutions without cutting off the water networks
- **HYDROMECA** GROUPE CLAIRE
  Customised metering systems
- **ADG** GROUPE CLAIRE
  Equipment and products for repairing drinking, irrigation and industrial water networks
- **iJINUS** GROUPE CLAIRE
  Independent and connected measurement and recording systems for water monitoring
- **FAST** GROUPE CLAIRE
  Equipment to detect and pinpoint leaks
- **HYDREKA** GROUPE CLAIRE
  Communicating instrumentation solutions for the water cycle

The Claire **group shares the know-how of six companies** that have demonstrated their expertise in **sustainable water management**, **electronics** and **software solutions**.

Our offering is made in the names of **IJINUS, FAST,** and **WAYVE**

claire CONNECTED SOLUTIONS



Drinking water | Natural water | Waste water

Innovative connected solutions,

offered by three specialists for the performance of your networks

iJiNUS GROUPE CLAIRE · FAST GROUPE CLAIRE · WAYVE GROUPE CLAIRE

iJiNUS GROUPE CLAIRE

Wireless connected instrumentation systems:
sensors, loggers and supervision

Advantages

EVOLUTIVE
Cellular communication card interchangeable on site, without having to switch equipment
Saving: **Initial investment preserved**

AUTONOMY
Energy-autonomous systems with batteries interchangeable on site, no tools required
Independence: **maintenance facilitated, more agile teams**

MULTI-MODAL COMMUNICATION
Through cable *(Modbus / 4-20mA)* or wireless *(2G/4G (LTE-NbIoT) / LoRa)*
Versatility: **less work on roads, simple with the client/server protocol**

PERFORMANCE
Accurate, multi-data diagnostics of any environment, without interference.
Reliability: **diagnostics assured even in extreme conditions such as deep or dirty water**

INNOVATION
Astute, patented, discreet solutions, designed with resilient materials
Ergonomics: **ultra-compact, integration with any environment**

VALORISATION
Remote monitoring platform for analysing and maintaining the installed equipment
Optimisation: **fast response times and operating costs kept under control**

EXPERTISE IN ALL KINDS OF NETWORKS

Innovative connected solutions,

offered by three specialists for the performance of your networks

iJiNUS GROUPE CLAIRE · FAST GROUPE CLAIRE · WAYVE GROUPE CLAIRE

FAST GROUPE CLAIRE

Systems for pre-locating, correlating and pinpointing leaks:
data loggers, ground listening devices, correlators and supervision

Advantages

COMPREHENSIVE RANGE
Solutions for permanent or temporary use even for plastic pipes
Versatility: acoustic pre-location/ pinpointing, multi-point correlation

RELIABILITY
Proven technologies for ultra-high-precision listening in real time
Performance: improved network yields

CUSTOMISATION
Tailor-made fitting out of pre-equipped water testing vans
Responsiveness: autonomous teams, trained in a range of "Smart City" solutions

SIMPLICITY
Universal, compact equipment, to accompany both seasoned experts and novices
Convenience: installation without major works, transport or use of facilities

40 YEARS OF KNOW-HOW
Robust, functional equipment installed and proven worldwide
Trust: tried and trusted solutions

VALORISATION
Remote monitoring platform for centralising, analysing and managing measurements
Optimisation: fast response times and operating costs kept under control

EXPERTISE IN DRINKING WATER

Innovative connected solutions,

offered by three specialists for the performance of your networks

iJiNUS GROUPE CLAIRE · FAST GROUPE CLAIRE · WAYVE GROUPE CLAIRE

WAYVE GROUPE CLAIRE

Connected boxes to limit wastage:
valves and monitoring

Advantages

TURNKEY
Boxes designed for a whole range of uses adapted to all kinds of networks (public, private, remote, main network)
Durability: early detection of leaks, preservation of resources

VERSATILITY
Patented and controlled 3-position system (open, closed and limited flow)
Control: of performance, distribution, water quality, pipes (e.g. VCM, frost, etc.)

AUTONOMY
Automatically controlled connected, energy-autonomous valve
Optimisation: automation of operations, minimisation of operating costs

ERGONOMICS
Compact, discreet valves that fit anywhere, even in extreme environments
Reliability: robust, waterproof

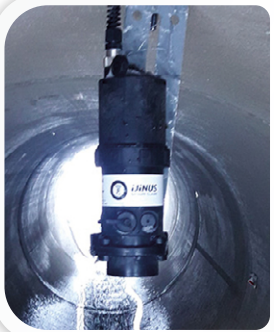
AGILITY
Mobile application to programme and control connected boxes remotely
Accessibility: easy installation and intuitive configuration

REMOTE CONTROL
Monitoring platform for continuous surveillance
Rationalisation: more accurate insight into consumption

ORIGINE FRANCE GARANTIE

EXPERTISE IN DRINKING WATER

Our applications



Surveillance of sewerage networks & Natural water

Autonomous, connected sensors and loggers

Permanent diagnostics and regulatory self-monitoring

Prevention of high and low water levels

Associated monitoring service

iJiNUS GROUPE CLAIRE

Drinking Water Diagnostics

Autonomous, connected data logger

Surveillance of key sectorisation data

Associated monitoring service

FAST GROUPE CLAIRE

Leak detection

Acoustic devices, correlator, etc.

Improve network yield

Associated monitoring service

WAYVE GROUPE CLAIRE

Monitoring and Control

Platforms, applications, connected boxes

Remote recovery and monitoring of data

Remote alerts and commands

New features

Natural water

LNR06 radar technology level sensor

WATER LEVEL MONITORING WITH NO EXTERNAL CONSTRAINTS!

p.18

Unique design

A single module with a contact sensor and a data logger

Radar technology with electromagnetic waves

Energy-**autonomous**

Reduction in cost of measurement point

Efficient **network coverage**

Optimised **surveillance**

Drinking water

BLUE data logger & WAYVE box

TWO-IN-ONE SOLUTION FOR SURVEILLANCE AND MONITORING OF DRINKING WATER NETWORKS

p.36

p.46

Complete sectorisation at a single monitoring point

Built-in pressure sensor

Multi-applications

Evolves with communication networks

Plug & play installation

Remoted **controlled**

Control of water consumption

Sewerage & Waste water

OVERFLOW water level detector

FOR EFFECTIVE MONITORING OF STORM WATER DRAINS

p.52

Reliable detection

Compact, **durable** solution

Patented **capacitive technology** based on reference to air

Autonomous and capable of **continuous** detection

Communication by Bluetooth (OVERFLOW APP)

Regulatory **self-monitoring**

Natural water

Drinking water

Sewerage & Waste water

Management and supervision of data

Services

iJiNUS GROUPE CLAIRE

FAST GROUPE CLAIRE

WAYVE GROUPE CLAIRE

claiRE

natural **Water**

Use case

Use case

Installation of measuring instruments to monitor water tables.

USE CASE
NATURAL WATER

Installation of measuring instruments to monitor water tables

3 river basins

7 springs

11 rivers

12 CNT pressure sensors and LOGV4 loggers

18 LNR06 radar sensors

CLIENT

Joint Association for the development of several river basins - France

ISSUES FACED

In order to obtain a better understanding of the hydraulic and hydro-geological functioning of its territory, the association wishes to have a number of different monitoring devices available in order to measure the variations in level of the water tables.

OUR INVOLVEMENT

The teams of IJINUS (Claire Group) accompanied the association in installing the combined 5 and 10 meter “CNR level sensor/ LOG09V4 logger” to provide piezometric monitoring of the water tables. The CNR sensor measures the water level by pressure. The data can be transmitted by radio locally, or automatically in 2G/4G.
To optimise this surveillance, level sensors using LNR06 radar technology were installed to monitor the level of the springs and rivers.

TAKEAWAYS

This new surveillance equipment allowed the association to improve its knowledge of the aquatic environments of the three river basins concerned and to anticipate possible water shortages. The association has all the measurements collected by the sensors/loggers on its supervision platform.

iJiNUS GROUPE CLAIRE

Monitor rainfall
in all areas
by means of pluviometry

NATURAL WATER

RG20 and RG25 rain gauges

Temporary and permanent campaign

Communication

Quick to install

The “all-in-one” solution for recording rainfall

Installed on buildings or close to storm spillways, rain gauges (autonomous, communicating and modulable), allow accurate monitoring of parasitic clear water and anticipation of surpluses or shortages of water.

They are essential for **self-monitoring and permanent diagnostics of sewerage networks** and for **monitoring natural water**.

Advantages

- **Accurate monitoring** of the impact of rainfall on underground and surface water
- **Easy to intall** and set up on the ground
- **Coupling of rain gauge data with data from the sensors/loggers connected** to the rain gauge
- **Configurable alarms** (duration and intensity of rainfall)

Characteristics

- Tipping bucket sensor with funnel collector
- Easy and quick installation; can be associated with autonomous LOGV4 logger:
  - Integrated 2G/4G communication card (LTE-M/NB-IoT), LoRa
  - Functions by time stamping or cumulative rainfall, T°C
  - Collection of data on site by radio or by automatic transmission by GSM/GPRS/FTP to a supervision tool at a remote site or on our IJITRACK platform
  - Energy-autonomous for more than six years
  - Export of data in .csv or Excel format
  - Compatible with Topkapi, Lerne, Dev I/0, Panorama, Ioda, ijitrack.com protocols

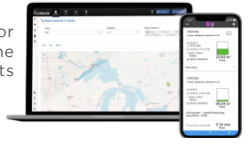
Management and supervision of data

Connected to the rain gauge, each sensor/logger is different and, apart from measuring the rain, also allows data with a variety of applications to be recorded

IJINUS LNU or LNR sensors, for taking measurements on waterways

IJINUS LOG data logger, for concentrating the data from the sensors located within its radio field and sending them to the supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

iJiNUS
GROUPE CLAIRE

Anticipate high and low levels of waterways, by measuring levels

NATURAL WATER

LNR06 radar technology level sensor

- *Compact*
- *Temporary or permanent campaign*
- *Communication*

Water level monitoring with no external constraints

The LNR06 wireless level sensor uses **radar technology** to keep watch on waterways, rainwater storage or retention basins and inflows and outflows to and from waste water treatment plants and irrigation channels.

Its **unique design,** combining a sensor and a logger in a single module, allows the cost of the point of measurement to be reduced for **more efficient network coverage and optimised surveillance**.

Advantages

- **Plug & Play solution with long-lasting battery,** logger and modem included
- **Compact, light and discreet:** < 1kg
- **Extremely low cost of installation**
- **Secure remote programming**
- **Impervious to wind and temperature variations**
- **Quick and easy to install**
- **Easy to maintain:** no direct contact with water

Characteristics

- Autonomous, versatile sensor: measurements of height, can be coupled with a physico-chemical or sampler-controlling sensor
- Radar technology: electromagnetic waves
- Energy-autonomous for more than six years
- Ideal for outdoor places exposed to the elements (IP68 waterproof)
- Kit (single or double), rotating collar and biaxial accelerometer
- Alert in the case of critical thresholds (SMS)
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTP/FTTPs
- Export of data in .csv, Excel or HTML format

Management and supervision of data

Connected to the rain gauges and to the OVERFLOW detector, each radar sensor concentrates data from the surrounding areas within range and sends the measurements to the overflow alert supervision tool

IJINUS RG20/RG25 autonomous rain gauge,
for accurate monitoring of the impact of rain on underground and surface water

IJINUS OVERFLOW water level sensor/ logger,
for measuring duration of overflows from storm spillways to the natural environment

The **IJITRACK** web platform for displaying and processing the data and setting alerts

The **OVERFLOW app** for checking and optimising the reliability of remote detection

AVELOUR software
for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

iJiNUS
GROUPE CLAIRE

Monitor the quality of waterways in their environment, in real time

NATURAL WATER

Battery-powered physico-chemical GSM buoy

Quick Start

Temporary and permanent campaign

Dynamic communication

The single-parameter “all-in-one” solution

It astutely monitors the quality of natural water, combining a communicating logger, a water quality probe that is interchangeable depending on the type of measurement required (pH, dissolved oxygen, turbidity, conductivity), a battery and a flotation kit.

All in a single compact product.

Advantages

- **Compact, auto-stable, light and robust buoy**
- **Easy and quick configuration:** calibration on site
- **Dynamic communication** between several buoys
- **Remote data collection**
- **Configurable alert thresholds**
- **Easy installation,** a single person can do it!

Characteristics

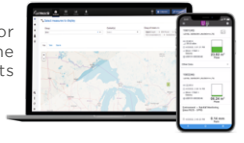
- Sensors or probes available:
  - Conductivity, Salinity & Temperature
  - pH, Redox & Temperature
  - O2 & Temperature
  - Turbidity NTU-mg/l & Temperature
- Energy autonomy > 5 years:
  - one measurement/15 min.
  - one GSM transmission per day
- Collection of data on site by radio (GSM/GPRS/FTP/FTTPs)
- RFID configuration kit for connecting to buoys from the shore or a boat
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

Installed alone or connected to other instrumented buoys, each sensor measures and records the information and sends the data to the supervision tool chosen

IJINUS autonomous GSM physico-chemical buoy, for monitoring the quality of natural water and sending measurements to supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts



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AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

Rainfall

High and low water levels

Quality ***single-parameter***

Quality *multi-parameter*

Water tables

iJiNUS GROUPE CLAIRE

Monitor the quality of waterways

from a bank, a bridge,
by means of physico-chemical measurements

NATURAL WATER

Physico-chemical data logger

Multi-parameter

Quick Start

Temporary and permanent campaign

The multi-parameter autonomous solution

Installed next to waterways or artificial lakes, the physico-chemical logger allows you to track the quality of the surface water in order to **respond to regulatory requirements or to perform diagnostics on waterways**.
It is quick and easy to install, with on-site calibration.

The data can be recovered on site by radio or remotely via a supervision tool.

Advantages

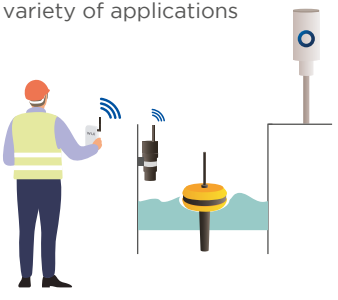
- **Compact and robust** (waterproof to IP68)
- **Modular** thanks to its multiple probes
- **Multi-modal**, with the option of connecting several water quality probes to the same data logger
- **Ultra-simplified on-site calibration**
- **Reduced maintenance**

Characteristics

- Sensors available:
  - pH, Redox and Temperature
  - Conductivity, Salinity & Temperature
  - Induction conductivity, Salinity & Temperature
  - Redox potential & Temperature
  - Dissolved oxygen & Temperature
  - Turbidity by nephelometry & Temperature
- Configurable alert thresholds
- Energy autonomy > 5 years
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTP/FTTPs
- Management of the data collected on our IJITRACK platform or on a remote supervision site
- Options:
  - Extension of autonomy with the 9-battery energy pack
  - Automatic cleaning is possible

Management and supervision of data

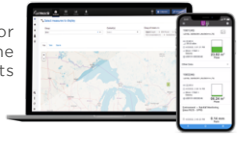
Connected to the rain gauge and/ or integrated with the autonomous buoys, each logger and its sensor is different and can record data for a variety of applications



IJINUS RG20/RG25 autonomous rain gauge,
for accurate monitoring of the impact of rain on underground and surface water

IJINUS autonomous GSM physico-chemical buoy,
for monitoring the quality of natural water and sending measurements to supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts



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WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

Rainfall

High and low water levels

Quality *single-parameter*

Quality ***multi-parameter***

Water tables

iJiNUS GROUPE CLAIRE

Monitor the level of water tables at drilling sites, by measuring levels

NATURAL WATER

CNR or CNRT level sensors
LOGV4 loggers

Temporary and permanent campaign

Communication

Quick to install

The connected pair for anticipating water shortages

The CNRT level sensor **measures the level by autonomous pressure** and **the temperature** of natural water in water tables, whereas the CNR sensor measures the **height of the water by pressure**.
Both sensors can be connected to a LOG03V4 or LOG09V4 data logger for data to be transmitted by radio. They facilitate monitoring of water levels in water tables through alerts to anticipate possible water shortages.

Advantages

- **Compact, discreet and robust** (waterproof to IP68)
- **Very easy to program** by radio
- **Suitable for all environments**
- **Multifunctional design with temperature measurement** (optional)
- **Range with or without modem** for local or remote measurement campaigns

Characteristics

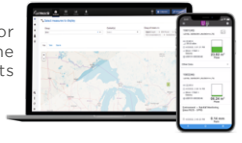
- 2 versions: with or without temperature
- Cables 5 to 60 metres with integrated pressurisation
- Reverse polarity protection
- Coupling by connector to LOGV4 loggers (pluviometry, physico-chemical water quality, level/speed, level/flow)
- Energy autonomy > 5 years
- Wireless configuration by radio
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTP/FTTPs
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

Connected to the LOGV4 loggers, each sensor allows data of various different applications to be recorded

IJINUS LOG data logger, for concentrating the data from the sensors located within its radio field and sending them to the supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts



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WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

Rainfall

High and low water levels

Quality *single-parameter*

Quality *multi-parameter*

Water tables

Natural water

Drinking water

Sewerage & Waste water

Management and supervision of data

Services

iJiNUS GROUPE CLAIRE

FAST GROUPE CLAIRE

WAYVE GROUPE CLAIRE

claiRE

drinking water

Use case

USE CASE
DRINKING WATER

Installation of connected valves and flow/ pressure loggers for detecting leaks and managing consumption by quarries

25
quarry sites

3
BLUE flow/pressure loggers

5
SAVE valves installed

CLIENT

TERREAL établissement des Carrières sud - France

ISSUES FACED

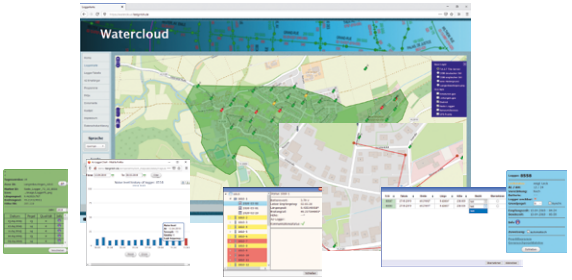
Keen to conserve the environment and committed to obtaining the ***Cap Environnement*** label for all its quarries, TERREAL établissement des Carrières sud has embarked upon a voluntary improvement programme. To respond to the environmental reference framework applicable to the extractive industries, it has had to start monitoring its water consumption.

OUR INVOLVEMENT

The Claire Group's water supply experts guided the client in its project to monitor and manage its water resources. SAVE connected valves were installed at the most critical water delivery points so that the supply can be cut off in the event of leaks. Monitoring, using BLUE loggers installed on the water meters to measure the flow and the pressure, is carried out from a single point at each site.

TAKEAWAYS

The installation of a complementary turnkey solution consisting of BLUE loggers and Wayve boxes allowed leaks to be detected and water cut-offs to be automated. The operational teams gained time thanks to the remote management system and rationalised water consumption in regions frequently affected by drought.



USE CASE
DRINKING WATER

Installation of acoustic loggers to monitor and detect leaks

100,000
inhabitants

1
WATERCLOUD
supervision

1,400
BIDI
loggers

CLIENT

Water utility of a large Luxembourg town - Luxembourg

ISSUES FACED
The hydraulic infrastructure of the water network is complex and subject to differences in level of more than 100 metres, which increases the risk of leaks and consequently the consumption of water that is not charged for. The water utility wished to embark upon a programme to pinpoint leaks by equipping itself with technological devices.

OUR INVOLVEMENT
The Claire Group's water supply experts guided the client in its project to monitor and manage its resources. In the preliminary phase, noise loggers were installed on pipes, valves and connectors in periods of low consumption. A van with a receiver was used to collect and analyse the measurements of the loggers as it passed by. The deployment of 1,400 BIDI loggers connected to the WATERCLOUD supervision platform allowed the performances initially obtained to be propagated throughout the network.

TAKEAWAYS
The introduction of BIDI pre-locators on the network allowed leaks to be reduced to 3.7% of total water consumption from the 36% that it represented prior to the investment! 350 leaks were detected and quickly repaired. The teams on the ground are more responsive, and repairs are now planned and reasoned, thus preserving the integrity of the network. The water board has all the data on the WATERCLOUD supervision.

SAINTE-LIZAIGNE
GROUPE CLAIRE

Creating surveillance access points

on all types of water networks by coverage

DRINKING WATER

SENSE network access point

Temporary and permanent campaign

Astute

Quick to install

A single access point for comprehensive and permanent network monitoring.

The SENSE connector **ensures permanent diagnostics** of the water network by detecting and pre-locating leaks, **particularly in plastic pipes**, checking pressure, monitoring temperature and allowing multi-point correlation. Installed as a traditional connector, the sensor is accessible and easy to change.

Advantages

- **Versatile system**
- **Easy to change sensors**
- **Dense network coverage** using consumer house connections
- **Simple to install:** conventional tapping connection
- **Comprehensive, accurate, permanent monitoring** from a single access point
- **Operator obtains improved understanding of the network** for optimised resource management

LEAK DETECTION BY PRE-LOCATION
↓
HYDROPHONE

MONITORING OF TEMPERATURE
↓
TEMPERATURE SENSOR

CHECKING PRESSURE
↓
PRESSURE SENSOR

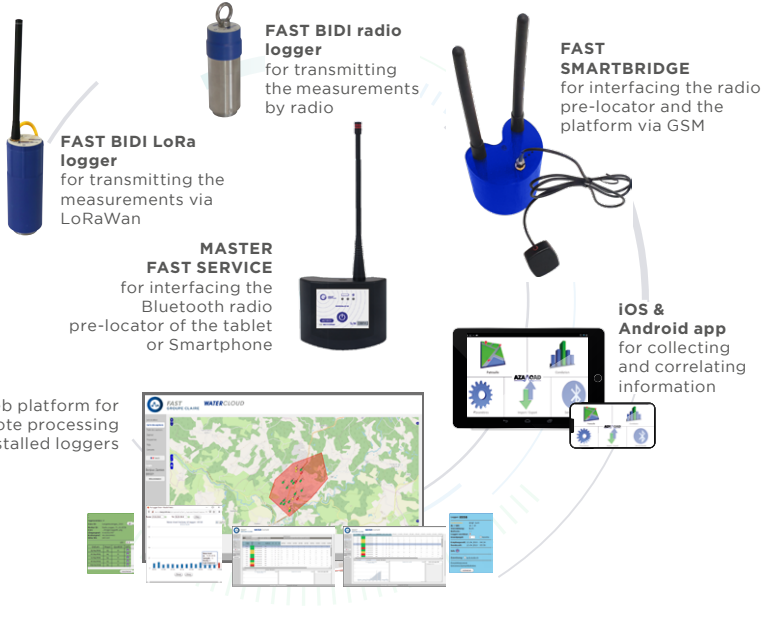
drinking water

Characteristics

- 2 versions: plug or hydrophone sensor
- Surveillance system protected by a Ø400 tube
- Connects to the network by a standard clamp
- Conventional tapping
- Interchangeable multi-sensors
- Data collected on site by radio (GSM/GPRS/FTP)
- Management of the data collected on our WATERCLOUD platform or remote monitoring

Management and supervision of data

Integrated with or connected to the SENSE device, each pre-locator records data on a range of pipe noises



FAST
GROUPE CLAIRE

drinking water

DRULO III
logger

Temporary and permanent campaign

Astute

Connected

Testing the network
before commissioning
by measuring pressures and temperature

A portable solution for rapid, reliable checking of the network's condition

DRULO III is an ultra-precise portable device for measuring the pressure and temperature of the water network. **Ideal for pressure and waterproofing trials** of new pipes or directly with the consumer, **sectorisation** campaigns or **network cut-off and pressure drop tests**.
With its integrated data logger, it memorises and transmits the measurements on the dedicated Android Drulo app and on the WATERCLOUD platform which gathers together the data of the network being analysed.

Advantages

- **Performance of network diagnostics**
- **Optimisation of operating costs**
- **Agility of the on-the-ground teams** if an anomaly is detected
- **Easy to use**
- **Simplified reading and analysis of data**
- **Wireless charging** by induction

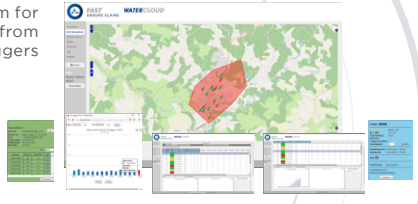
Characteristics

- Visualisation of measurements in real time on an LCD screen on site
- Recording capacity of 1.8 million data records
- High-precision measurement for pressure tests (millibars)
- Measuring interval can be set anywhere from one second to 24 hours
- Configuration, collection and reading of data via Application
- Management of the data collected on our WATERCLOUD platform or remote monitoring
- Recharging by induction with dedicated base
- Carrying case

Management and supervision of data

The DRULO III logger allows the data from a variety of different applications to be recorded

WATERCLOUD web platform for displaying data from the installed loggers



iOS & Android app for collecting and correlating information

iJiNUS
GROUPE CLAIRE

Testing the measurement quality of flow meters, by transit time

DRINKING WATER

Ultrasonic flow meter transit time

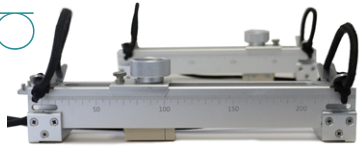
Compact

Temporary and permanent campaign

drinking water

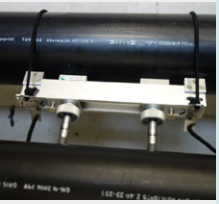
Performance applied to flow meters

This portable ultrasound flow meter calculates the flow of water by reference to its speed, that is to say transit time.
Through specific and efficient signal processing, this portable flow meter offers **high performance measurement** capabilities in all conditions.
It is used for temporary or permanent measurement campaigns, to estimate leakage rates, monitor pump flows and for online monitoring of flow meters.



Advantages

- **Non-intrusive and easy to use**
- **Easy to use** with the new processor and improved performance
- **Intuitive** thanks to the installation assistance feature
- **Lightweight and portable** (less than 750 g)
- **Robust, with ABS casing** (waterproof to IP68)



Characteristics

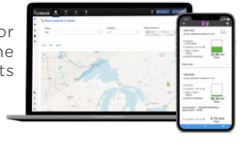
- Memory: 2 GB
- 10 flow calculations/s
- Data retrieval via USB
- Pipe diameter: 10 to 10,000 mm
- Easy-to-read OLED graphic display
- Battery life >70 hours continuous, more with sequencer function
- Automatic on-site 0-point calibration
- Ultrasound transit time technology (permanent two-way measurement)
- Assistance with diagnostics: oscilloscope function (echo display), gain, quality index, alarms
- Temperature range: -20°C to 50°C and 0°C to 45°C under load

Management and supervision of data

Recovery of data on USB stick

IJINUS LOG BLUE logger for collecting data via a 4-20mA signal or performing fast pulse metering

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

iJiNUS
GROUPE CLAIRE

Sectorising the network

by measuring pressures, flows, metering

DRINKING WATER

BLUE & BLUE LP loggers

Temporary and permanent campaign

Multi-parameter

Evolutive

The most versatile logger on the market, for easy sectorisation!

Self-powered and with its built-in pressure sensor in the LP version, the BLUE logger is an **ideal** multi-parameter logger **for all sectorisation applications**: measuring pressure, flows, metering and controlling regulation. The BLUE logger records and transmits equipment data by radio or cellular.

Advantages

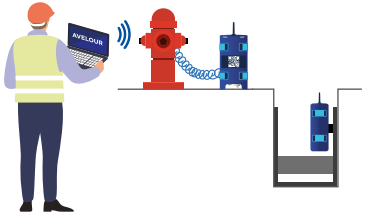
- **Complete sectorisation at a single monitoring point**
- **Autonomous, communicating & compact**
- **Evolves** with communication networks
- **Simple installation** quick connection and drag and drop pose feature
- **Easy maintenance:** no changing of equipment
- **Cellular communication card** and battery interchangeable by user on site

Characteristics

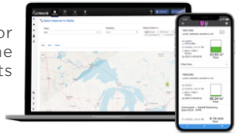
- Built-in pressure sensor 0-25 bar for checking the pressure at fire hydrants or pipes
- Compatibility with meter transmitter heads (2 pulse inputs up to 100 Hz)
- Compatibility with several MODBUS flow meters
- Open-collector output to drive a control device
- 2 versions: BLUE-LP with built-in pressure sensor and BLUE without
- Enhanced waterproofing, IP68: 2m/100 days
- Built-in 2G/4G (LTE-M or NB-IoT) cellular communication card for collecting data via GSM/GPRS/FTPs/HTTPS
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

Connected to fire hydrants, electromagnetic flow meters, meter transmitter heads, each sensor/logger is different, allowing data from a variety of different applications to be recorded



The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

FAST
GROUPE CLAIRE

Monitoring and pre-locating leaks in the network by measuring noise

DRINKING WATER

BIDI loggers

Temporary and permanent campaign

Compact

Quick to install

The multi-function logger that listens to networks

Installed at various points in the network on valves or in manholes, pre-locators form a **permanent or temporary monitoring system**. They automatically log night-time noise to reduce call-out time and provide early detection of a leak. With the correlation function, which specifies the area where the leak is located, **response times are optimal**.

Advantages

- **Optimal response times**
- **No major works required for installation**
- **Compact device with built-in antenna**
- **Permanent listening**
- **Precise pinpointing**
- **Ultra-simple programming** with tablet and Service Master

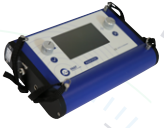
Characteristics

- Dual function: pre-location + correlation
- Configuration, patrol, and correlation with Android tablet or smartphone using the Service Master radio/Bluetooth interface unit
- Application can be downloaded free of charge from the PlayStore
- Advanced operating mode: 7,200 measurements over a fully programmable night-time period, with identification of the standard minimum night-time and day-time noise levels
- Configurable multi-point correlation (date, time, etc.)
- Available in various sizes, battery durations, types of sensors (magnetic or hydrophone)
- Communication and remote data gathering (radio or LoRaWan) via LoRa network or GPRS
- Supervision of the pre-locator fleet with the WATERCLOUD platform

Management and supervision of data

Deployed individually, integrated with SENSE, or used with the AQUA range, each pre-locator allows data on a range of pipe noises to be recorded

SENSE SAINTE-LIZAIGNE NETWORK ACCESS POINT, to monitor the network, detect and pre-locate leaks

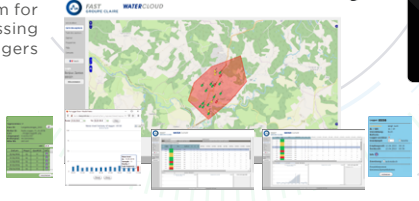


FAST AQUA RANGE for detecting and pinpointing leaks by listening for noise

MASTER FAST SERVICE for interfacing the Bluetooth radio pre-locator of the tablet or Smartphone

FAST SMARTBRIDGE for interfacing the radio pre-locator and the platform via GSM

WATERCLOUD web platform for displaying and remote processing of data from the installed loggers



iOS & Android app for collecting and correlating information

FAST
GROUPE CLAIRE

AQUA range

Temporary campaign

Compact

Smart technology

drinking water

Listening for leaks

in all types of water networks

by measuring noise

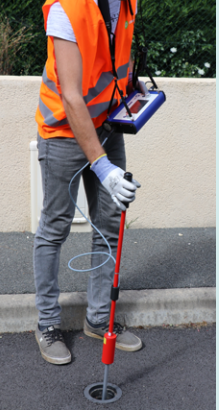
DRINKING WATER

Various solutions for detecting and/or pinpointing leaks in networks

The AQUA range consists of water leak detection and pinpointing devices for all uses: from the most compact and simple to use for daily use, to the most evolutive and versatile, through the indispensable standard models.

Advantages

- **AQUA M40:** **lightweight, fast** thanks to an ultra-sensitive vibration sensor **and evolutive,** with optional accelerometer for the **AQUA M60**
- **AQUA M100:** **compact, robust and easy to transport** for high quality acoustic detection
- **AQUA M300:** **universal, evolutive, versatile system**



Characteristics

AQUA M300

- Acoustic pinpointing using a tracer gas and detection of pipes with the PWG II pulse generator
- Colour touch screen and multi-function rotating knob
- Automatic or expert mode

AQUA M100

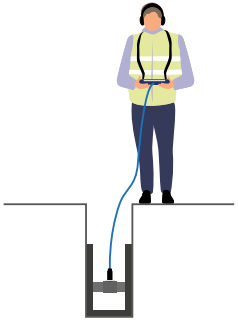
- Acoustic pinpointing using a tracer gas and detection of pipes with the PWG II pulse generator
- Only three control knobs
- Professional sound quality with six pre-set filter levels

AQUA M40 / AQUA M60

- High sensitivity
- Bluetooth wireless technology
- Ambient noise filtered or attenuated
- Possibility of combining leak monitoring with meter reading

Additional products

Each device is different and allows any user to detect and/or pinpoint leaks in a variety of situations



FAST
GROUPE CLAIRE

Correlating leaks
in all types of water networks
by measuring noise

DRINKING WATER

LOKAL 400
multi-purpose
correlator

Temporary campaign

Intuitive

Evolutive

Intuitive two-in-one system for optimised network operations

Installed at pre-located listening points, the LOKAL 400 is a versatile device allowing leaks to be correlated and pinpointed, and then confirmed with ground microphone. This solution is simple to use, optimises the response and enables the leak to be quickly pinpointed.

Recognised for its rapidity of use, its accuracy and its multi-point correlation, it **offers reliable detection even in daytime and with busy traffic**.

Advantages

- **Great user comfort** thanks to its high-contrast, backlit colour display
- **Highly ergonomic** thanks to its multi-function rotary knob and touchscreen
- **Upgradeable to ground listening and acoustic pipe tracing functions**
- **Easy to use:** automatic or expert mode
- **Precise correlation in just a few clicks**
- **Effective on plastics** thanks to hydrophone kit (optional)

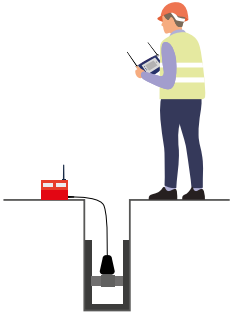
drinking water

Characteristics

- 2-in-1 system: correlator and upgrading to ground listening
- Pre-location with test rod, universal accelerometer or MB6 accelerometer
- MB6 transmitters and sensors are installed at pre-located detection points
- Possibility of FFT correlation on 3 points with a third MB 6
- Confirmation and ultra-precise pinpointing of leaks with geophone or accelerometer
- “Trans-auto” function to cope with road traffic
- Storage of correlations and possibility of updating parameters to recalculate a correlation subsequently and print a report

Additional products

This versatile device pinpoints leaks first by means of acoustic correlation and then by ground listening



FAST
GROUPE CLAIRE

PIPEMIC range

Multi-parameter

Temporary campaign

Quick Start

Pinpointing leaks
in all types of water networks
by inspecting pipes

DRINKING WATER

drinking water

Agile very high precision systems for pinpointing leaks

The range of PIPEMIC acoustic devices contributes to improving the performance of the network, allows pipes under load to be spotted and leaks to be detected and pinpointed. Simple to use, these devices prove very **effective in searching for leaks in connections of both small and large distribution pipes**.
The Flex version is ideal for environments with meters and curved pipes.

Advantages

- **Flexible,** suited to the most difficult conditions
- **3-in-1 system:** acoustic leakage detection, pipe tracing and pinpointing of leaks
- **Effective on all types of pipes** PE / PVC / Metal
- **Easy and quick to implement**
- **Internal long distance listening** (different lengths)
- **Several leaks identifiable in a single action** for optimised resource management
- **Reduced costs** of earthwork and repairs

Characteristics

- 5 sizes available
- Effective on all types of pipes - PE / PVC / Metal
- Implemented by inserting the probe into a network access point: Ø 10mm / Ø 12mm / Ø 22mm
- Detectable probe for very high precision (to within one cm)
- Listening at different distances: 50m / 80m / 150m / 300m for DN 20 to 300 pipes
- Direct listening to leakage noise on a Bluetooth device (with headphone and speaker)
- Built-in odometer and disinfection system
- Accessory case: flexible connector, fireman-type quick coupling, charging accessories and 9V battery

Additional products

WAYVE
GROUPE CLAIRE

Detecting and managing leaks
in all types of water networks, remotely

DRINKING WATER

WAYVE
connected boxes

Multi-parameter

Permanent campaign

Quick to install

Intuitive and innovative solution for managers of drinking water networks

The WAYVE range covers a wide variety of uses suited to all network configurations. **These** connected **valves** allow **remote monitoring and control of abnormal consumption of water** and the automation of **maintenance** operations.

4 turnkey solutions:

- **SAVE Box:** management of consumption and detection of leaks in public and private places, notably those occupied only seasonally or in isolated locations
- **MOVE Box:** distribution of water when movement is detected in public places and isolated locations
- **CLEAN Box:** preservation of the quality of the water in the networks (VCM, stagnant water, etc.)
- **TEMP Box:** protection of pipes exposed to extreme conditions and of the quality of water (freezing, heatwave, etc.)

Advantages

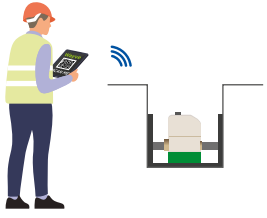
- **Automatic, autonomous system**
- **Automatic replenishment of water**
- **Pipes and quality of water preserved**
- **Control of consumption and operating costs**
- **Remote management,** fewer site visits
- **Continuous monitoring of water supply points**

Characteristics

- Connected valves, remotely controlled
- Metering and monitoring of consumption
- 3 positions for water distribution: open, closed and limited flow
- Alert in the event of abnormal consumption
- Programming of ordinary maintenance operations (purge, opening in time slots, actions in case of freezing, etc.)
- Battery life > 2 years
- Automatic maintenance, with interchangeable battery
- Waterproof to IP67 (with sensor) / IP68 (without sensor)
- GSM communication
- Management of the data collected on our WAVE platform or remote monitoring

Management and supervision of data

Connected to the network, each box allows the data of various different applications to be collected and transferred and information to be received on programming or opening/ closing the water supply



WAYVE web platform , for remotely controlling the boxes, monitoring and alerting in the event of leaks in the system, collecting historical and statistical data, geolocating the devices

The **WAYVE app,** for programming opening times, automatic action in the event of a leak, controlling the system, collecting historic and statistical data, geolocating the box

Natural water

Drinking water

Sewerage & Waste water

Management and supervision of data

Services

iJiNUS GROUPE CLAIRE

FAST GROUPE CLAIRE

WAYVE GROUPE CLAIRE

claiRE

sewerage & waste water

Use case

USE CASE
SEWERAGE & WASTE WATER

Installation of water height/flow rate measurement devices for global surveillance of infiltration

> 30,000
inhabitants supplied

13
sectorisation points

13
OSRAI FLOW & LNU06 ultrasonic sensors

CLIENT

An operator in a conurbation in Brittany - France

ISSUES FACED
In order to meet its commitments as regards research and the reduction of water infiltrating into its waste water and sewerage network, the client wished to acquire appropriate instrumentation devices for identifying the dysfunctional sectors of its drainage basins.

OUR INVOLVEMENT
The teams of IJINUS (Claire Group) supported the operator with an autonomous, connected device: the OSRAI FLOW solution, consisting of a contraction (obstacle) and an LNU06 wireless level sensor with converter from water height to flow rate. Installed in a fixed position, and requiring no other equipment, it measures the flows going through the pumping stations, either from the operating times of the pumps or from electromagnetic flow rate meters.

TAKEAWAYS
The sectorisation of the drainage basins and land reconnaissance allowed us to validate the hydraulic conditions and to choose the contraction sizes proposed by the patented OSRAI FLOW technology. Integrated with the supervision platform, the data, collected securely by radio at a single surveillance point, allowed the operator to be more agile and to preserve the quality of its sewerage network while at the same time guarding against risks of environmental pollution.

USE CASE
SEWERAGE & WASTE WATER

Installation of autonomous equipment for measuring wetland inflow and outflow rates

12 treatment ponds

12 LNR06 radar sensors/loggers

12 display screens

CLIENT

Constructed wetlands - France

ISSUES FACED

In order to monitor the levels of inflow and outflow to and from the twelve constructed wetlands, with no electricity, visualising measurement data obtained on site, the client wished to equip itself with innovative, self-powered instrumentation solutions that could be installed quickly and easily

OUR INVOLVEMENT

The teams of IJINUS (Claire Group) accompanied the client in the simple installation of self-powered equipment. Based on radar technology and combined with a multi-data display, the LNR06 sensor/logger has its own internal battery and is set up wirelessly. The display associated with the LNR06 is powered by the radar tube and can display values on demand. The measurements are transmitted automatically to the supervision platform.

TAKEAWAYS

This self-powered “all-in-one” solution facilitates the client’s monitoring of the 12 treatment units and allows easy maintenance directly on site (change of battery without change of equipment).

iJiNUS GROUPE CLAIRE

OVERFLOW sensor and logger

Detection and measurement of duration of discharges into storm spillways or overflows of pumping stations

SEWERAGE & WASTE WATER

Temporary and permanent campaign

Integrated communication

Innovative

Solution for effective monitoring of storm water drains!

The latest-generation Ijinus overflow detector measures the durations of overflows from storm water drains to the natural environment, even in extreme conditions. Connected to the automated system at the sewerage facility or to an IJINUS logger, it transfers the data remotely.
Equipped with the BLE communication system (Bluetooth Low Energy) and **used together with the OVERFLOW app**, the overflow detector simplifies regulatory monitoring while at the same time maximising reliability of detection.

Advantages

- **Regulatory self-monitoring of unequalled reliability**
- **Virtually insensitive to clogging** thanks to its “CapAir®” patented capacitive technology
- **Practical, with its** OVERFLOW app **that monitors and manages** clogging
- **Simplified installation** thanks to its integrated fixing plate
- **Logging of overflows even in the event of power outage**
- **Wireless version,** ideal for recording data from temporary campaigns

Characteristics

- CapAir® patented capacitive technology based on reference to air
- Analysis and dynamic adjustment of overflow alert thresholds
- Waterproof to IP68
- Coupling to LOGV4 loggers (pluviometry, physico-chemical water quality, level/speed, level/flow)
- Battery life > 5 years
- Wireless set up in Bluetooth with the OVERFLOW mobile application
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTPS/HTTPS
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

Connected to an LNU or LNR water level sensor or a LOGV4 logger, each detector measures and transfers the overflow data remotely

IJINUS LNU or **LNR sensors,** for measurements in sewerage systems or waterways

IJINUS LOG data logger, for concentrating the data from the sensors located within its radio field and sending them to the supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts

The **OVERFLOW app,** for configuring the detector in Bluetooth, verifying and taking action on overflows

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

iJiNUS
GROUPE CLAIRE

LNU06 wireless ultrasonic level sensors

Temporary and permanent campaign

Versatile

Quick to install

Monitoring flow rates

in storm water drains or overflows in pumping stations,

by means of contactless measurement of the water height

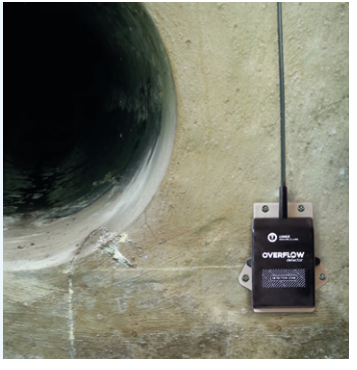
SEWERAGE & WASTE WATER

Ultrasonic technology for difficult environments

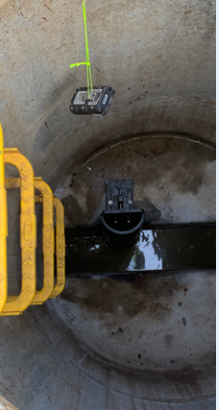
The wireless LNU is an acoustic imaging level sensor, which is ideally suited to measuring water levels in harsh environments. It facilitates network monitoring in accordance with regulations through continuous diagnostics, and it can also be used to monitor the levels of storm water overflows and the overflows of the pumping stations as and when required. It is a useful ally in **preventing waste water from being discharged into the natural environment** and in monitoring the state of decay of the network.

Advantages

- **Compact, all-in-one:** sensor/logger/communication
- **Reliable:** accurate level measurements
- **Entirely autonomous:** low power consumption technology
- **Easy to install and use:** secure programming by radio without having to touch the sensor
- **Easy maintenance:** no direct contact with water



sewerage & waste water

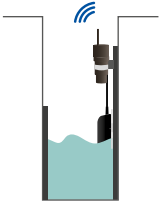


Characteristics

- Versatile: height measurements, can be coupled with a physico-chemical or sampler-controlling sensor, indicating the volume to be taken for sampling based on the flows measured
- Accurate measurement ranges from 0.3 to 6 metres in height
- Alert in the case of critical thresholds being reached
- Battery life > 5 years
- IP68 waterproof (1 bar/30 days)
- Built-in conversion tables (height, flow, volume)
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTPS/HTTPS
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

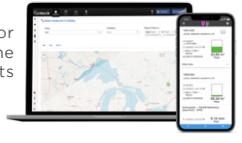
Connected to a physico-chemical sensor, to an overflow detector, and/ or to a water sampler..., each sensor allows data for a variety of different applications to be logged



IJINUS physico-chemical logger, for collecting and transmitting monitoring measurements of the quality of waste water

IJINUS OVERFLOW sensor/logger, for measuring duration of overflows from storm water drains to the natural environment

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

iJiNUS GROUPE CLAIRE

Monitoring flow rates
in sewerage pipes,
by measuring water height

SEWERAGE & WASTE WATER

LNU06 wireless ultrasonic level sensors

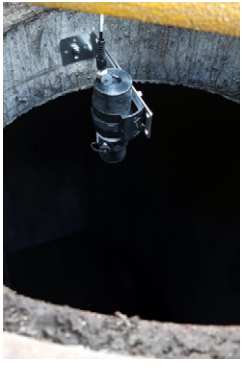
Temporary and permanent campaign

Astute

Quick to install

Ultrasonic technology for difficult environments

The LNU wireless acoustic imaging level sensor is a reliable, autonomous, communicating solution for the monitoring of sewerage network water levels, suited to measuring water heights in harsh environments. It facilitates network monitoring in accordance with regulations through continuous diagnostics, and it can also be used to monitor overflows of pumping stations as and when required. It is a useful ally for **monitoring the decay of the network**.



Advantages

- **Compact, all-in-one:** sensor/logger/communication
- **Reliable:** accurate level measurements
- **Entirely autonomous:** low power consumption technology
- **Easy to install and use:** secure programming by radio without having to touch the sensor
- **Easy maintenance:** no direct contact with water

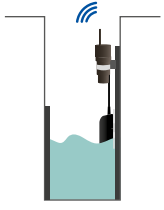
sewerage & waste water

Characteristics

- Versatile: height measurements, can be coupled with a physico-chemical or sampler-controlling sensor, indicating the volume to be taken for sampling based on the flows measured
- Accurate measurement ranges from 0.3 to 6 metres in height
- Alert in the case of critical thresholds being reached
- Battery life > 5 years
- IP68 waterproof (1 bar/30 days)
- Built-in conversion tables (height, flow, volume)
- Wireless configuration by radio
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTPS/HTTPS
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

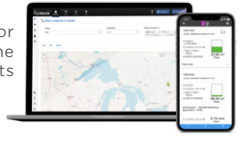
Connected to a physico-chemical sensor, to an overflow detector, and/ or to a water sampler..., each sensor allows data for a variety of different applications to be logged



IJINUS physico-chemical logger, for collecting and transmitting monitoring measurements of the quality of waste water

IJINUS OVERFLOW sensor/logger, for measuring duration of overflows from storm water drains to the natural environment

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

iJiNUS
GROUPE CLAIRE

OSRAI FLOW
height/flow
converter
& LNU06 wireless
flow sensor

Works DN 200><400

Integrated communication

Patented®

Monitoring flow rates in sewerage pipes,
by measuring the height of water together with a Venturi channel

SEWERAGE & WASTE WATER

The combination for fail-safe conversion!

Used together with an LNU06 wireless flow sensor, the **OSRAI FLOW** is the autonomous, innovative, communicating solution **for reliably converting a height measurement to a flow rate**. It significantly reduces the margin of error for flow rate calculations in the harshest environments. It is quick and easy to install in drainage pipes and can be adapted to the needs of the site, even in existing drainage channels. It can be used to calculate the flow rate over a wide range of upstream slopes using the measured water level.

Advantages

- **Innovative design**
- **Patented technology** based on the principle of contraction of flow by an “obstacle”
- **Quick and easy to install**
- **Limited risk of clogging**
- **Comprehensive, accurate, permanent supervision** from a single access point
- **Reliable flow rates** for upstream slopes **up to 4%**

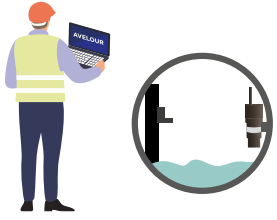
sewerage & waste water

Characteristics

- OsraiFlow® patented system
- Contactless height measurement and limited contraction
- The sensor calculates the flow rate
- Retrieval of flow rates and volumes passing through by probe
- Built-in conversion tables
- Battery life > 6 years
- Waterproof to IP68
- Wireless configuration by radio
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTPS/HTTPS
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

Connected to an LNU06 wireless flow rate sensor, each converter ensures the reliability of the flow rates calculated and the transmission of the data



Monitoring flow rates
in sewerage pipes
by measuring water height and speed

Doppler UB-V speed sensor & LNU06 wireless flow sensor

Temporary and permanent campaign

Works DN≥ 400

Ultra-accurate autonomous measurements, even for low flow rates!

Particularly well-suited to permanent diagnostics of sewerage networks, the Doppler UB-V sensor allows optimum measurements of speed. It accurately measures even very low velocities, from a water height of 35 mm, even in water with low particle content.
It is ultra-compact, has very great autonomy and is very easy to install.

Advantages

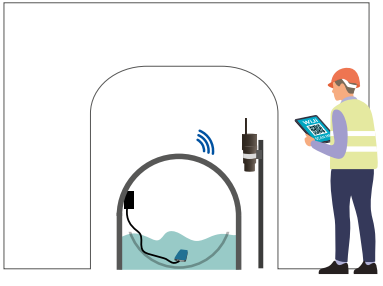
- **Very low power consumption**
- **Smart digital speed sensor**
- **Ultra-compact and ultra-long autonomy**
- **Quality and precision** of speed measurement
- **Quick installation**
- **Deduces flow rates** from water levels

Characteristics

- Pulsed Doppler immersion technology at 1 MHz
- Minimum height for speed measurement 35 mm
- Cable length 10, 15 and 20 metres
- Connected to self-powered solutions
- Long-term battery life > 5 years
- Waterproof to IP68
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTPS/HTTPS
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

Connected to an LNU06 wireless flow sensor, each sensor transmits the data measured



VLI height/speed sensor & LOGV4 loggers

Temporary and permanent campaign

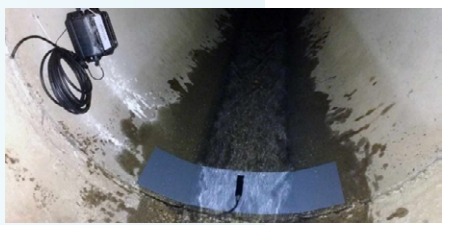
Managing flow rates
in sewerage pipes
by means of a combined height and speed sensor

Facilitating sewerage network operation and monitoring by means of cross-comparison of measurements!

The VLI sensor is a multi-purpose, highly accurate height and velocity sensor. It is equipped with a digital Doppler velocity sensor, and coupled with a pressure level sensor **it can measure velocity from a water height of 25 mm**. Ultra-compact, versatile and accurate, the OVERFLOW technology with which it is equipped allows the pertinence of the speed measurements in storm overflows to be verified and sensor battery life to be increased.

Advantages

- **Smart digital technology**
- **Ultra-compact**
- **High measuring accuracy**
- **Quick installation**



Characteristics

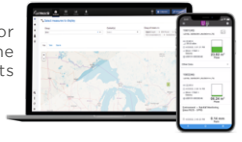
- Pulsed Doppler immersion technology at 500 KHz
- Equipped with a flat digital pressure sensor
- Measures height from 2 mm of water
- Minimum height for speed measurement 25 mm
- Compensated in temperature and pressure, it allows a level calibration according to the atmospheric pressure
- Waterproof to IP68
- Connected to an self-powered logger
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTPS/HTTPS
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

Connected to a LOG logger, each sensor transfers the measurement data

IJINUS LOG data logger, for concentrating the data from the sensors located within its radio field and sending them to the supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

Measuring flow rates pumped
in a pumping station
by detecting electric current

SEWERAGE & WASTE WATER

Current clamps & LOGV4 loggers

Temporary and permanent campaign

Astute

Quick to install

Facilitating sewerage network operation and monitoring by means of cross-comparison of measurements!

In the context of sewerage network diagnostics, high-performance current clamps are the **autonomous "on/off" solution for recording operating times of pumps in lift stations**. Dual clamp-on ammeters are sensors that convert current into an on/off signal. They connect to pump starting cables and operate in "quick & clip" mode. These clamp-on ammeters need to be coupled to a data logger that will collect the measured data.

Advantages

- **"On/off" switch**
- **Easy to install**
- **High detection threshold**
- **Safety ensured** by the fact that there is no contact between the clamps and the cables
- **Clamps self-powered** by magnetic field

sewerage & waste water

Characteristics

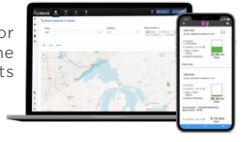
- 2 models, depending on the required detection range
- Recording time-stamped or balance (from minute to day)
- Clamps self-powered by magnetic field
- Length of cable 1.5 metres
- Easy and fast placement of clamps, Quick&Clip system
- Connection to LOGV4 loggers, battery life > 3 years
- Retrieval of data on site by radio or transmission to supervision system by 2G/4G (LTE-M or NB-IoT), LoRa
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

Connected to LOG loggers, each pair of clamps transfers the data on the operation of the pumping stations

IJINUS LOG data logger, for concentrating the data from the sensors located within its radio field and sending them to the supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

Monitoring inflows and outflows into and from waste water treatment plants

by means of contactless measurement of water height

LNR06 radar technology level sensor

- *Compact*
- *Temporary and permanent campaigns*
- *Communication*

Water level monitoring with no external constraints

In the context of the legal obligation to measure the inflows and outflows to and from waste water treatment plants, the LNR06 wireless level sensor provides this monitoring. By measuring the water level, the flow rates can be calculated by conversion.
Its unique design, combining a switch sensor and an self-powered logger in a single module, **allows the cost of the point of measurement to be reduced for more efficient network coverage and optimised surveillance**.

Advantages

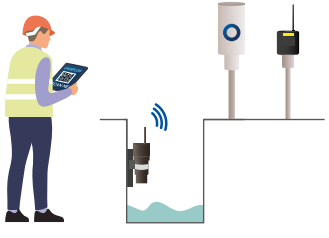
- **Plug & Play solution** with built-in battery
- **Compact, light and discreet:** < 1kg
- **Extremely low cost of installation**
- **Secure remote programming**
- **Impervious to wind and temperature variations**
- **Easy to maintain:** no direct contact with water

Characteristics

- Radar technology: electromagnetic waves
- Can be coupled with a physico-chemical or sampler-controlling sensor
- Ideal for outdoor places exposed to the elements (IP68 waterproof)
- SMS alert in the case of critical thresholds being reached
- Battery life > 6 years
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTPS/HTTPS
- Export of data in .csv, Excel or HTML format
- Kit (single or double), rotating collar and biaxial accelerometer

Management and supervision of data

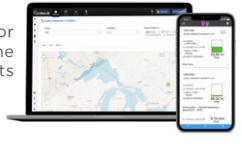
Connected to the rain gauges and to a display screen, each radar sensor concentrates the data from the surrounding areas within range and sends the measurements to the overflow alert supervision tool



RG20/RG25 IJINUS autonomous rain gauge
for accurate monitoring of the impact of rain on underground and surface water

IJINUS display screen, for visualising the data in real time

The **IJITRACK** web platform for displaying and processing the data and setting alerts



AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

Monitoring the measurements of devices

at the entry and exit of waste water treatment plants by display

Display

Versatile

Data in real time

Quick to install

Monitoring level measurements in real time

The display allows easy visualisation of the measurement data recorded on the ground by the IJINUS water level sensors and loggers. Connected to LNU wireless ultrasonic sensors or to LNR06 radar technology level sensors, the display is autonomous as regards energy and automatically streams the data of the measurements recorded on the ground. Connected to a rain gauge or a water sampler, it allows the control range to be extended with visualisation of all the measurements useful to monitor the channels leading into and out of the waste water treatment plant: height, flow, volume and pluviometry.

Advantages

- **Multi-data:** height, flow, volume, pluviometry
- **Autonomous,** powered by the sensor's battery
- **Very easy to use**
- **Automatic or manual** page scrolling
- **Can be installed externally**

Characteristics

- 2.42" monochrome OLED screen
- Automatic scrolling of values (4 screens)
- Compatible with height measurement loggers
- Screen powered by the LNR06V4 radar or LNU06V4 ultrasonic level sensor
- Activation by pushbutton
- Retrieval of data by Modbus connection
- Configuration via AVELOUR software
- Waterproof to IP65

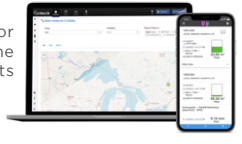
Management and supervision of data

Connected to the rain gauge or to level sensors, the display allows visualisation of the data of a variety of different applications

IJINUS LNU or **LNR sensors,** for measurements in sewerage systems or waterways

RG20/RG25 IJINUS autonomous rain gauge for accurate monitoring of the impact of rain on underground and surface water

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

Detecting and pinpointing the presence of H2S gas

in pipes or pumping stations
by measuring the concentration of H2S

LOGAZ
communicating
H2S sensor

- *Versatile*
- *Temporary and permanent campaigns*
- *Integrated communication*

3-in-1 solution to protect the integrity of networks, the environment and the safety of local residents!

This smart sensor detects and accurately measures the presence of H2S in drains and the sewerage network. It contributes to preserving the network infrastructure, for which hydrogen sulphide is highly corrosive, to safeguarding a high-quality environment for local residents and to quantifying the performance of anti-H2S treatment. Measurement campaigns are undertaken remotely by means of a communication card or by taking readings on site. The data collected may be sent to a supervision platform.

Advantages

- **Easy to use** thanks to its on-site interchangeable measuring head, which incorporates a built-in calibration function
- **Multimodal:** capable of communicating with several types of supervisory instances
- **Self-powered** thanks to its replaceable lithium battery
- **"Backup" mode to continue measurements and logging** in the event of a power outage, on the LOGAZ PRO version

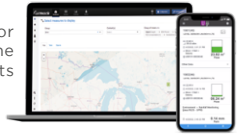
Characteristics

- Measurement of H2S concentrations and temperature
- Electrochemical cell technology
- Measuring range: 0-2000 ppm
- Wireless configuration by radio
- Gas cells interchangeable on site
- Battery life > 5 years
- Integrated 2G/4G cellular communication card (LTE-M or NB-IoT) for the collection of data via GSM/GPRS/FTPS/HTTPS
- Management of the data collected on our IJITRACK platform or on a remote supervision site

Management and supervision of data

Each LOGAZ sensor measures and records the data relating to the presence of H2S gas

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

Natural water

Drinking water

Sewerage & Waste water

Management and supervision of data

Services

iJiNUS GROUPE CLAIRE

FAST GROUPE CLAIRE

WAYVE GROUPE CLAIRE

claiRE

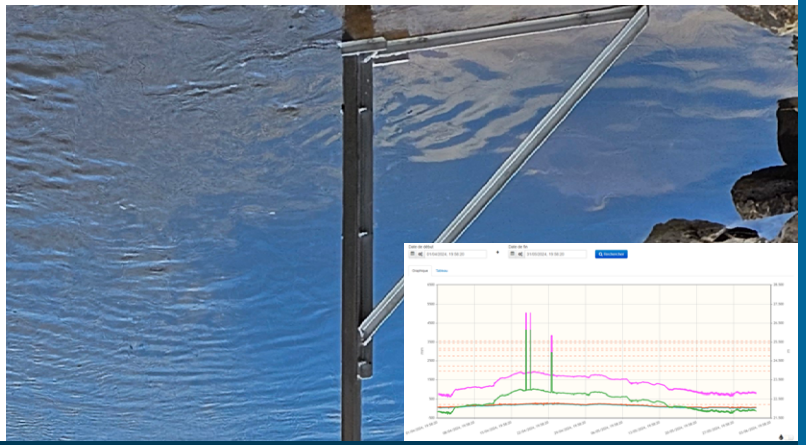
management and supervision

Use case

Supervision offers

USE CASE
SUPERVISION

Prevention of flooding with IJITRACK supervision



20,000
consumers supplied

3
LNR06 radar sensors

1
IJITRACK supervision

CLIENT

Municipality of Sainte-Marthe-sur-le-Lac, Canada

ISSUES FACED

The municipality of Sainte-Marthe-sur-le-Lac is located on the banks of the Deux-Montagnes Lake (150 km²). Most of the municipality is protected by a dyke. In 2019, the dyke broke, causing unprecedented flooding.

OUR INVOLVEMENT

The teams of IJINUS (Claire Group) accompanied the municipality in monitoring the water level of the lake. Three radar technology sensors were installed at strategic points to monitor the height of the lake (on the beach, at the lake itself and in a drain). The data recorded by the LNR06 radar sensors are sent every hour to the IJITRACK platform. If a threshold is exceeded, a virtually instantaneous alert is immediately transmitted to the municipal employees.

TAKEAWAYS

With this deployment, the management of heavy rainfall and snow melt allows the municipality to prevent all risks of flooding. The IJITRACK supervision system very easily generates a graphic report for optimal monitoring. The teams on the ground are highly responsive and guided in their operations by alarms, which are delivered together with recommended actions such as closing the gate valve, restarting a pump, etc.

USE CASE
SUPERVISION

Installation of CLEAN connected valves to automate purges and regulate VCM rates with the WAYVE app.

2,300
km
of networks

30,000
consumers
supplied

5
valves
installed

CLIENT

Aveyronnaise des Eaux, France

ISSUES FACED

The Aveyron Water Authority faced VCM rates that exceeded the threshold established by EU legislation. To restore the quality of drinking water, daily purges had to be carried out at some extremities of the network.

OUR INVOLVEMENT

The Claire Group's drinking water supply teams accompanied the operator in installing and configuring WAYVE connected valves. They allow the purging of branch lines to be remotely automated thanks to the WAYVE application. The field workers can configure the valves and check their condition from their smartphones. A remote meter placed upstream of the valve allows the operator to check, directly on the supervision tool, that the volume of purged water is consistent with the programming of the Clean valve.

TAKEAWAYS

The installation of Wayve valves enabled a daily action to be automated, in a hard-to-reach environment (the meter well was at the far end of a field). The operational teams thus gain time to work on other tasks.

Watch the video testimony.

iJiNUS
GROUPE CLAIRE

AVELOUR
software

Scan all equipment

Customisation

Quick Start

Setting up the measurement devices and collecting data, on site,
by radio configuration with AVELOUR

MANAGEMENT
AND SUPERVISION
OF DATA

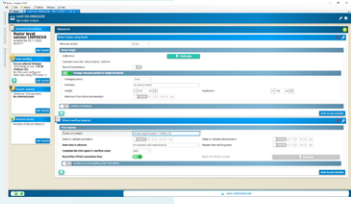
management and supervision

The professional's tool for configuring sensors and loggers, locally or remotely

AVELOUR is the software application for configuring Ijinus sensors, loggers, detectors and concentrators. It can also be used to collect data, analyse them with a summary display and export them as Excel files or reports. **Multiple configuration options are possible** and the settings can be saved for replication on several sensors. Sensors are configured and data collected locally via radio or remotely using a data logger.

Advantages

- **Intuitive interface**
- **Unique configuration tool,** compatible with all IJINUS sensors
- **Fast, assisted configuration**
- **Settings are saved** so that they can be replicated for several sensors
- **Summary graphs of your data,** with comparison of several items of equipment
- **Security is ensured** thanks to configuration and monitoring

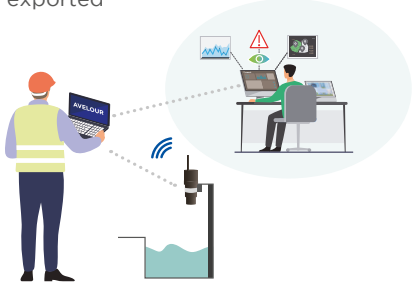


Characteristics

- Instantaneous HF connection of nearby sensors with the connection kit or the WIJI USB stick
- Multi-curve display of your data
- Collection of indexed data
- Recovery of uniquely differential data
- Export of data in GIF, jpeg, Excel or .cvs format
- Update: availability notified upon each connection
- Required operating system: Windows 7 or higher

Management and supervision of data

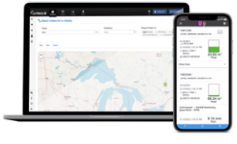
Connected to the IJINUS sensors and loggers, the AVELOUR software application allows data from a variety of applications to be analysed and exported



IJINUS LNU or LNR sensors, for measurements in sewerage systems or waterways

IJINUS LOG data logger, for concentrating the data from the sensors located within its radio field and sending them to the supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

WIJI connection kit including a radio transmitter, USB cable, antenna or USB stick

Compatible with CLIENT supervision tools: Topkapi, Panorama, Dev-IO (OPC-UA, Osisoft, Ifix, WinCC Wonderware, etc.)

iJiNUS GROUPE CLAIRE
FAST GROUPE CLAIRE
WAYVE GROUPE CLAIRE

WIJI, AZA-OAD & DRULO and WAYVE applications

Referencing the measurement devices, configuring alarms, on site, with their dedicated App

MANAGEMENT AND SUPERVISION OF DATA

- *Real time*
- *Multilingual*
- *Quick Start*

Handy gadgets for configuring sensors and loggers

Each app allows sensors and loggers to be quickly configured in a user account. They are essential for activating notifications and alerts in real time, providing optimal monitoring of sensitive points in the network, displaying the latest data sent by the sensors and showing the alarms that have been configured.

Advantages of the Wiji app

- **Rapid integration** thanks to the QR Code, scanned to activate automatic GPS pinpointing
- **Responsiveness on the ground** thanks to the installation photographs for easily locating the sensor

iJiNUS GROUPE CLAIRE

Advantages of the AZA-OAD & Drulo apps

- **Automatic transfer of the measured values from the tablet**
- **Visualisation of data** (history of the network, measured values and interventions)

FAST GROUPE CLAIRE

Advantages of the WAYVE app

- **Programming of opening time slots,** automatic purging operations, openings based on a temperature threshold depending on connected box models
- **System control and automatic action** in the event of a leak

WAYVE GROUPE CLAIRE

Characteristics

- Configuration of sensors and loggers
- Visualisation of the latest data, historical and statistical data
- Pinpointing items of equipment
- Notifications and alerts
- Management of users
- Available in several languages

Management and supervision of data

Each application is **in communication with the sensors and loggers and their** dedicated **platform** and allows equipment to be rapidly configured and/or data to be visualised

Online (web) platforms
for displaying and processing data, defining alerts

Sensors
for taking measurements in the water network

Loggers
to concentrate the data from sensors located within their radio field before sending them to the supervision tools

iJiNUS
GROUPE CLAIRE

Visualising and monitoring data, **remotely**, on the IJITRACK supervision platform

MANAGEMENT AND SUPERVISION OF DATA

IJITRACK platform

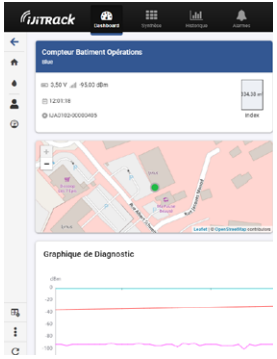
Real time

Remotely

Multilingual

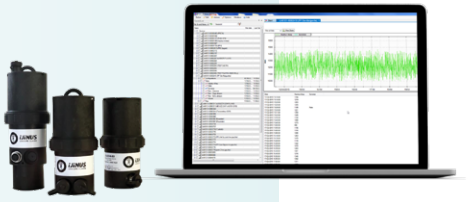
The intuitive supervision platform for your sensors and loggers

IJITRACK is a web-based platform where your sensor data is compiled and displayed to be analysed and interpreted. **Monitoring of the network can be customised with the configuration of alerts** for greater pertinence of on-the-ground interventions. The platform allows the sensors to be geolocated on a map and their measurements to be quickly interpreted thanks to the display of multi-curve graphs and facilitates the creation and management of customer accounts.

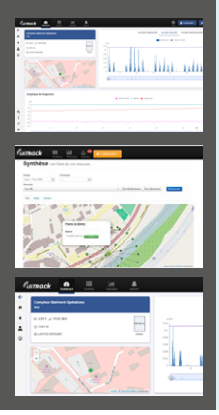


Advantages

- **Unique monitoring tool** for natural water, drinking water and waste water networks
- **Compatible with all IJINUS sensors and data loggers**
- **Fast, assisted configuration** thanks to its simple, intuitive interface
- **Customised monitoring of your data** with tailor-made exports
- **Fast response in the field** thanks to customised alerts
- **Increased operator safety** through remote supervision



management and supervision



Characteristics

- Compilation of data measured and recorded by multiple sensors and loggers
- Display of data on map, table and object
- Export of data: GIF, jpeg, Excel, .csv formats, graphs - by sensor, by group, in a date range, can be automated by HTTP request
- Import of data: by SMS, GPRS (FTP), LTE-M, NB-IoT
- Multi-curve display: up to 7 curves
- Client or group multi-accounts with different levels of rights assigned
- Alert recipients: up to 20 telephone numbers or email addresses
- Data security through a secure HTTPS connection and 128 bit encryption

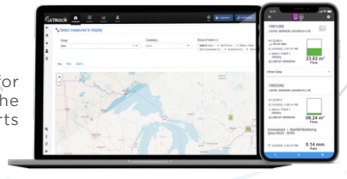
Management and supervision of data

The IJITRACK platform, which is in communication with the IJINUS sensors and loggers, allows the data from a variety of different applications to be displayed and processed

IJINUS LNU or **LNR sensors,** for measurements in sewerage systems or waterways

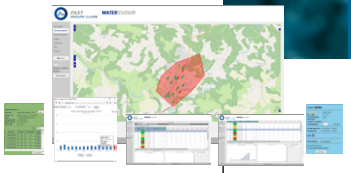
IJINUS LOG data logger, for concentrating the data from the sensors located within its radio field and sending them to the supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

FAST
GROUPE CLAIRE



WATERCLOUD
platform

Visualising and monitoring data, remotely, on the WATERCLOUD supervision platform

MANAGEMENT
AND SUPERVISION
OF DATA

management and supervision

Real time

Remotely

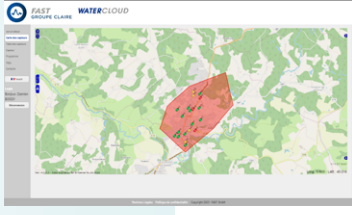
Multilingual

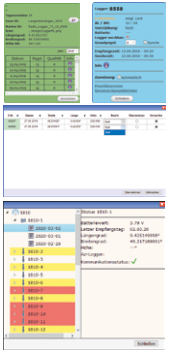
The intuitive supervision platform for searching for leaks

WATERCLOUD is a web-based platform for remote water supply network monitoring. Based on a map, it **centralises, manages and displays data and measurement values from the FAST pre-locators to detect leaks in water networks**. This WATERCLOUD online application, which analyses and manages data, improves response times and optimises operating costs.

Advantages

- **Continuous network monitoring** for early detection of water leaks
- **Ergonomic platform** with access to measurement data on map, by sector, table, graph
- **Audio recordings of noises heard are also available** (BIDI Radio version)
- **Automatic retrieval of the values** measured
- **Creation of a database** (history of the network, measured values and interventions)





Characteristics

- Retrieval of information by Bluetooth (via tablet, coupled with the Master service) or GSM (via duo BIDI Radio/ Smartbridge) or LoRa via the BIDI LoRa)
- WATERCLOUD account created by FAST
- Possibility of creating different user levels (administrator, guest, etc.)
- Geolocating of equipment (loggers) on WATERCLOUD
- Data interpretation on WATERCLOUD
- Creation of campaigns

Management and supervision of data

The WATERCLOUD platform, which is **in communication with the FAST loggers and pre-locators**, allows the data from a variety of different applications to be displayed and interpreted

MASTER FAST service
for interfacing the Bluetooth radio pre-locator of the tablet or Smartphone

FAST BIDI radio logger
for transmitting the measurements by radio

FAST SMARTBRIDGE
for interfacing the radio pre-locator and the platform via GSM

FAST BIDI LoRa logger
for transmitting the measurements via LoRaWan

The **AZA-OAD app** for visualising the data and importing the values measured in Watercloud

WAYVE
GROUPE CLAIRE

management and supervision

WAYVE
platform

Connected

Astute

Quick Start

Maintaining installed equipment, **remotely**, controlling the equipment with the WAYVE supervision platform

MANAGEMENT AND SUPERVISION OF DATA

The professional's tool for remotely controlling the water network

The WAYVE platform centralises the data transferred from the connected boxes. **It provides remote monitoring of all the equipment**: geolocation, viewing of history and statistics, notifications and alerts, and **remote control**.

Advantages

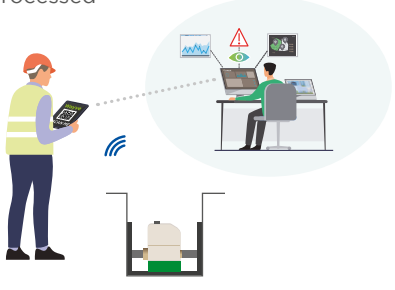
- **Continuous monitoring of equipment**
- **Notifications and alerts** (leak alerts, etc.)
- **Remote control** (open, close, limited flow, activation of programs)
- **Reduction of operating costs** by reducing travel
- **Optimisation of water consumption**
- **Minimisation of risks of leakage and associated wastage, conservation of the water quality**

Characteristics

- Automated, customised management of connected valves
- History and statistics
- Export of data
- Notifications and alerts
- Remote control of valves
- Pinpointing items of equipment
- Battery level
- Meter reading
- Management of users

Management and supervision of data

In communication with the CLEAN, TEMP, SAVE or MOVE CONNECTED BOXES, the WAYVE platform allows the data from a variety of different applications to be displayed and processed



CLEAN, SAVE TEMP or MOVE box, patented and controlled 3-position valve (open, closed and limited flow)

WAYVE web platform, for remotely controlling the boxes, monitoring and alerting in the event of leaks in the system, collecting historical and statistical data, geolocating the devices

The **WAYVE app,** for programming opening times, automatic action in the event of a leak, controlling the system, collecting historic and statistical data, geolocating the box

iJiNUS
GROUPE CLAIRE

AVELOUR
software,
REMOTE version

Scan all equipment

Customisation

Quick Start

management and supervision

Maintaining installed equipment, **remotely**, controlling the equipment with AVELOUR REMOTE

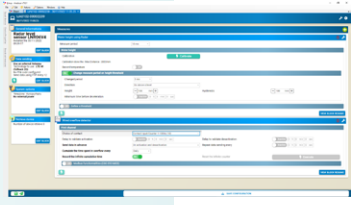
MANAGEMENT AND SUPERVISION OF DATA

The professional's tool for remotely optimising measurement devices

The REMOTE version of the AVELOUR software allows **various patches to the measuring device configurations to be remotely activated**. These autonomous systems with cellular communication allow new AVELOUR configurations to be shared with the IJITRACK platform or the client's monitoring tool. The collection of data in accordance with the new configurations **facilitates optimisation of the equipment in the network, without the field teams having to intervene**. Multiple configuration options are possible and the settings can be saved for replication on several sensors.

Advantages

- **Unique configuration tool,** compatible with all IJINUS sensors
- **Fast, assisted configuration**
- **Settings are saved** so that they can be replicated for several sensors
- **Summary graphs of your data,** with comparison of several items of equipment
- **Compatible with CLIENT supervision tools:** Topkapi, Panorama, Dev-IO (OPC-UA, Osisoft, Ifix, WinCC Wonderware, etc.)

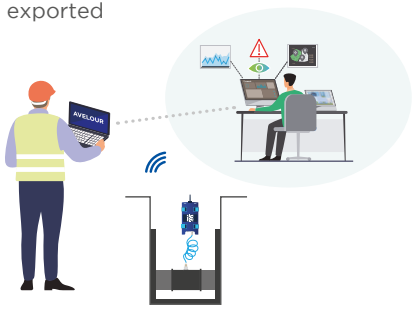


Characteristics

- Instantaneous HF connection of nearby sensors with the connection kit or the WIJI USB stick
- Multi-curve display of your data
- Collection of indexed data
- Retrieval of differential data only
- Export of data in GIF, jpeg, Excel or .cvs format
- Update: availability notified upon each connection
- Required operating system: Windows 7 or higher

Management and supervision of data

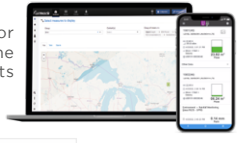
Connected to the IJINUSsensors and loggers, the AVELOUR software application allows data from a variety of applications to be analysed and exported



IJINUS LNU or LNR sensors, for measurements in sewerage systems or waterways

IJINUS LOG data logger, for concentrating the data from the sensors located within its radio field and sending them to the supervision tools

The **IJITRACK** web platform for displaying and processing the data and setting alerts



The **WIJI app** for quickly configuring your IJITRACK account

Compatible with CLIENT supervision tools: Topkapi, Panorama, Dev-IO (OPC-UA, Osisoft, Ifix, WinCC Wonderware, etc.)

Topkapi

Panorama Suite

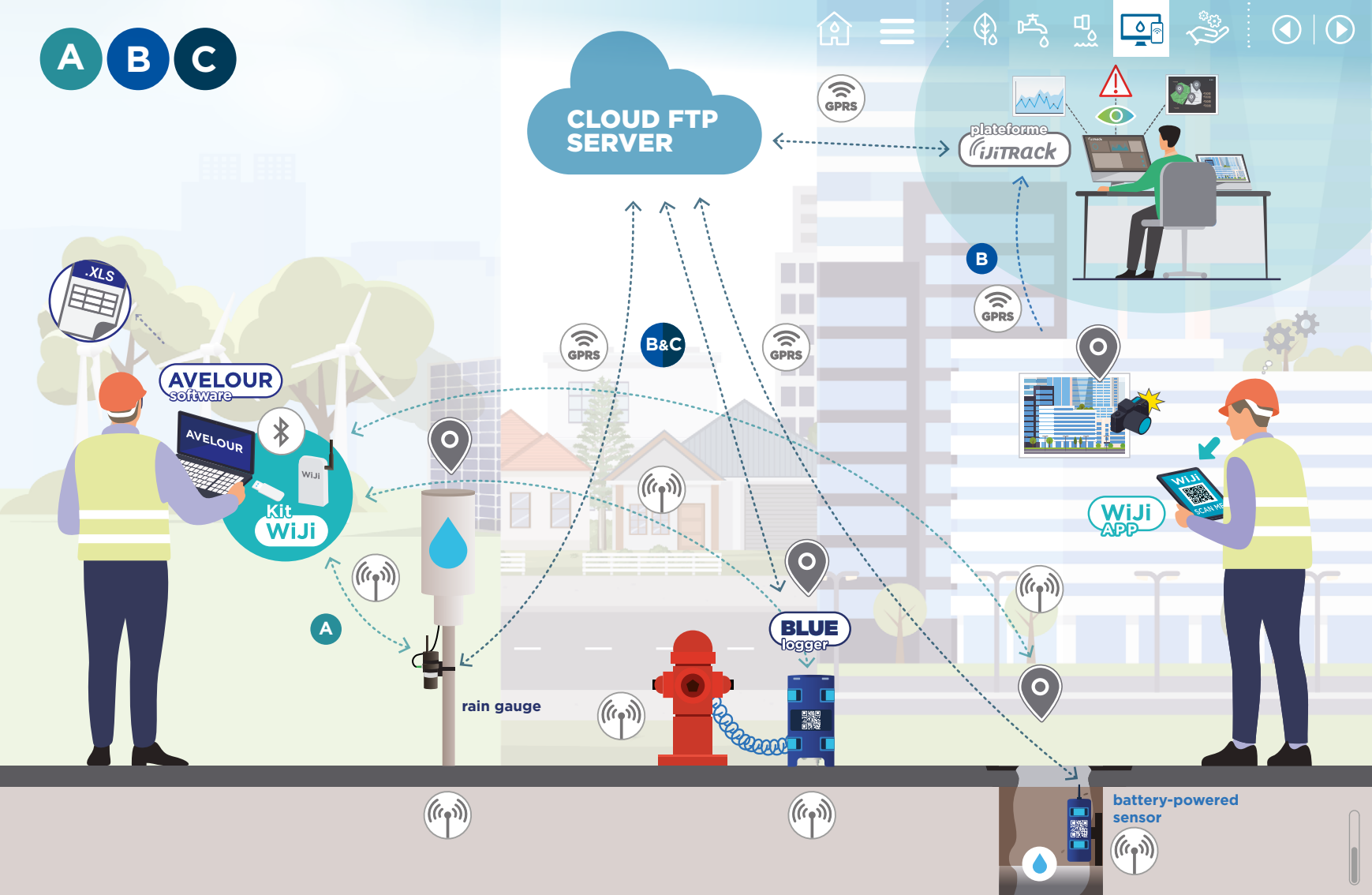
DEVIO

AVELOUR software for swiftly programming sensors and retrieving, analysing and exporting data

iJiNUS GROUPE CLAIRE

Monitoring solutions

MONITORING	Objectives	Actions	Functions	INSTALLED EQUIPMENT: Data loggers	INSTALLED EQUIPMENT: Connection Wiji kit/ Wiji USB stick	SOLUTIONS: WIJI app	SOLUTIONS: AVELOUR	SOLUTIONS: AVELOUR REMOTE Monitoring	SOLUTIONS: IJITRACK.com Monitoring	SOLUTIONS: CLIENT
BASIC — POWER DATA (A)	A — CONFIGURE the installed equipment — Collection by radio	1/ Configure the measuring devices	**On site**, by **radio**: • **configuration of loggers/sensors** • **setting alert thresholds** and saving settings	●	●		●			
		2/ Collect and transmit data	**On site**, by **radio**: • **retrieval of data** from the logger (measurements, alarms, etc.) • **extraction and sending of reports** to a **third-party application (Excel, etc.)**							
			BASIC	●	●		●			
MEDIUM — LOOKER DATA (A + B)	B — MONITOR the installed equipment — Remote reading	3/ Visualise the data measured	**Remotely**, on the **monitoring** platform: • **import of data measured** by the logger • **visualisation and monitoring of data**	●					●	●
		4/ Reference the measuring devices, Set alarms	**On site**, via **cellular** connection, **scanning of loggers/sensors** with the **WIJI app**: • **setting alarms** • **geolocation** of each item of equipment **and assignment to an IJITRACK account** • **recording of photographs** of installation sites • **alert to field teams** in the event of thresholds being exceeded • **optimisation of management** of the installed equipment	●		●			●	
		5/ Monitor and optimise	**Remotely**, and connected to: • the **WIJI app**: **monitoring** and notification of alarms **in real time** • the **IJITRACK.com** platform: **visualisation of the dashboard**	●		●			●	
			MEDIUM	●	●	●	●		●	●
FULL — MASTER DATA (A + B + C)	C — CONTROL the installed equipment — Remote reading	6/ Maintenance	**Remotely**, and connected to the **IJITRACK.com** platform, **remote activation** of patches and **control** of the installed equipment.	●					●	
			Remotely, from the **CLIENT's** platform and **connected** to **AVELOUR REMOTE**: • **sharing of the AVELOUR REMOTE configuration file** with the **CLIENT's monitoring tool** • **remote activation of patches and control** of equipment	●				●		●
			FULL	●	●	●	●	●	●	●


A
B
C
CLOUD FTP SERVER
GPRS
plateforme
iJiTrack
B
GPRS
B&C
GPRS
GPRS
.XLS
AVELOUR
software
AVELOUR
WiJi
Kit
WiJi
A
rain gauge
BLUE
logger
WiJi
APP
WiJi
battery-powered
sensor

WAYVE GROUPE CLAIRE

Monitoring solutions

MONITORING	Objectives	Actions	Functions	INSTALLED EQUIPMENT (OPTIONAL) WAYVE boxes, **Save, Clean, Temp, Move**	SOLUTIONS **WAYVE** Application	SOLUTIONS **APP-WAYVE.COM** monitoring
BASIC — POWER DATA A	A — CONFIGURE & MONITOR the connected valves; BLE data collection	1/ Activate the boxes	**On site**, via **Bluetooth (BLE):** • **synchronisation of** Wayve **valves** with the **WAYVE app** user space • **manual control** of the valve to make the box connection to the water network secure			
		2/ Configure connected boxes	**On site**, via **Bluetooth (BLE):** • configuration of **automatic purges, opening time slots** (different thresholds depending on the model of box) • programming the **number of communications** and uploads of all data • **geolocation** (GPS coordinates) and **identification** of each item of equipment • saving of settings	•	•	
		3/ Visualise the data and control locally	**On site,** connected by **Bluetooth (BLE)**, visualisation **of a dashboard:** • **log of values** measured by each WAYVE connected box (meter readings) • **valve condition, notifications** in the event of a leak being detected • **off-line mode** for consulting data after taking readings on site • **statistics** (number and status of communications, maintenance jobs, openings and shut-offs, flow restrictions and purges) • **control of valves** for optimal responsiveness of field teams			
			BASIC	•	•	
FULL — MASTER DATA A + B	B — MONITOR & CONTROL the connected valves; Remote reading	4/ Collect and transmit data	**Remotely**, and connected to the **APP-WAYVE.com platform**: • **automatic retrieval** of the data recorded by connected boxes • **assignment to a** WAYVE client **account** • **data can be exported and sent** to a third-party application (.csv, .pdf)			
		5/ Monitor and optimise	**Remotely**, and connected to the **APP-WAYVE.com platform**: • **map view** of each connected valve: **position** and **status,** battery level (box) • **customised management** of connected boxes by segmentation (team, division, etc.) • **recording of photographs** of installation sites • **monitoring of data** (thanks to historical data on values measured: **overall water consumption**), for all installed boxes (daily, weekly or customised view), **meter reading** • **notifications** (in the event of a suspected leak) • **email alerts** (change in reading, temperature, battery, position)	•		•
		6/ Adjust and maintain	**Remotely**, on the **APP-WAYVE.com platform**: • **adjustment of thresholds for triggering purges and selection of** manual or automatic process • **control** of valves (opening, closing and restricted flow) • **monitoring** of **automated operations**			
			FULL	•	•	•

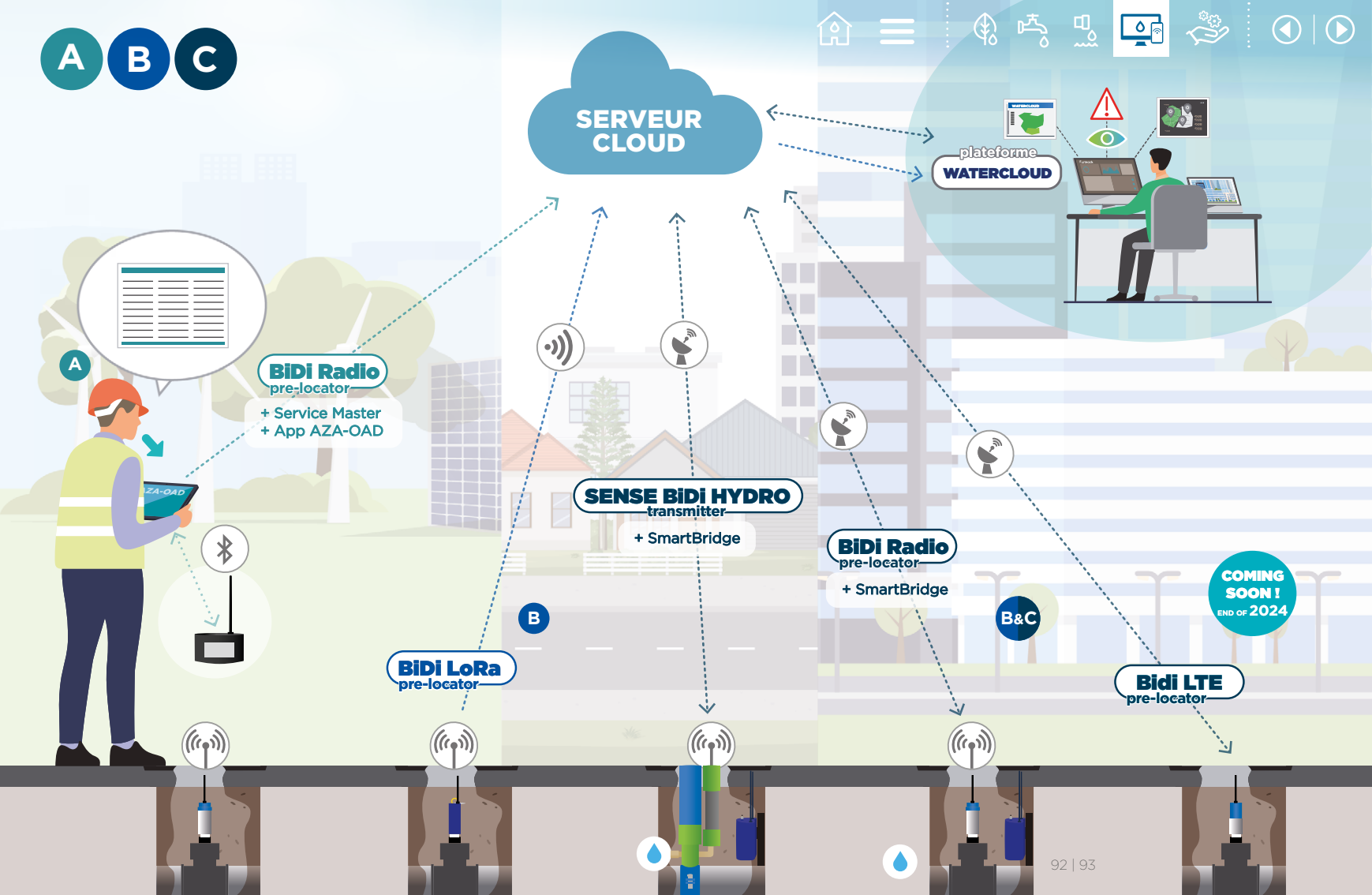

A
B
CLOUD
SERVEUR
plateforme
Wayve
XLS
PDF
Wayve
APP
B
A
Wayve
Box

Wayve Box

FAST
GROUPE CLAIRE

Monitoring solutions

OFFERS OF SERVICES	Objectives	Actions	Functions	EQUIPMENT (OPTIONAL) BIDI RADIO	BIDI LoRa	BIDI LTE NEW	Interface Master Service	SmartBridge connector	SOLUTIONS AZA-OAD app	WATERCLOUD monitoring
BASIC — POWER DATA (A)	A — CONFIGURE the installed equipment — Collection by radio	1/ Configure the measuring devices	**On site**, connected by **radio** with the **AZA-OAD app**: • configuration of BIDI loggers: **programming of listening periods**, communications and configuration back-ups • **geolocation** of each item of equipment and **assignment to a WATERCLOUD account**	●	●	●	●		●	
		2/ Visualise the data	**On site**, connected by **radio** with the **AZA-OAD app**: • "table" view of the **logs of values** measured by the loggers, • **extraction and sending of reports** by email							
			BASIC	●	●	●	●		●	
MEDIUM — LOOKER DATA (A + B)	B — MONITOR the network — Remote reading	3/ Automatic transmission and monitoring of data	**Remotely,** connected to the **WATERCLOUD monitoring** platform: • **automatic retrieval of the data measured** by the loggers • **map view** of the loggers and values collected (colour codes, night-time values, monitoring of condition of the sensors, etc.) • **monitoring of data** thanks to logs of sounds listened to (table of values measured, status of leak, histogram, audio recordings, interventions, etc.)	●				●		●
					●	●				●
			MEDIUM	●	●	●	●	●	●	●
FULL — MASTER DATA (A + B + C)	C — MONITOR the network — Remote reading	4/ Valorisation of data	**Remotely,** connected to the **WATERCLOUD monitoring** platform: • **programming, retrieval** of audio recordings from BIDI LTE loggers or the BIDI radio/Smartbridge logging combination • **analysis** of the database • possibility of **remote correlation**	●				●		●
						COMING SOON ●				●
			FULL	●	●	●	●	●	●	●


A B C
SERVEUR CLOUD
plateforme
WATERCLOUD
A
BiDi Radio
pre-locator
+ Service Master
+ App AZA-OAD
SENSE BiDi HYDRO
transmitter
+ SmartBridge
BiDi Radio
pre-locator
+ SmartBridge
B
B&C
COMING SOON ! END OF 2024
BiDi LoRa
pre-locator
Bidi LTE
pre-locator

Natural water

Drinking water

Sewerage & Waste water

Management and supervision of data

Services

iJiNUS GROUPE CLAIRE

FAST GROUPE CLAIRE

WAYVE GROUPE CLAIRE

claiRE

Services

Rental

Short- and long-term rental

The Ijinus rental service can provide a range of equipment for measurement campaigns throughout Europe:

- **For surface water, waste water and water tables:**
  - Sensors/data loggers,
  - Rain gauges,
  - Water samplers

- **For the drinking water supply network:**
  - Logger with internal or external pressure sensor
  - 4-20mA or Modbus connection to electromagnetic flow meter,
  - Fast flow metering (pulses)

Reserve your equipment now!

After-sales - Maintenance

The Ijinus, Fast and Wayve after-sales service teams accompany users in commissioning connected products. They also provide technical support during servicing and maintenance operations, and the refurbishment of certain equipment.

Maintenance of leak detecting devices and Wayve boxes is carried out at their manufacturing sites, and is subject to special, transparent monitoring to ensure reliable use of the product throughout its life cycle (a service booklet is delivered).

Claire training centre
customised training facilities

With themed or customised modules, it allows teams to learn effectively in real-life conditions.

- **Different modules available:** water management, locating leaks, installation of loggers, training on monitoring platforms (Ijitrack, Watercloud, Wayve, etc.)
- **A customised programme adapted** to your project and in accordance with the methods and systems in use in the field
- **Partners** to enrich the offering

These training courses can be held on the Sainte-Lizaigne campus in France or the Fast campus in Germany.

Ijinus immersive & customised training courses

Our qualified trainers, who are experts on the environment, will accompany you at every step of your project and propose **specific training directly in the field**, for a practical application as close as possible to your needs.

Claire Products Application,

a service that is accessible everywhere,
and at any time,

available on the AppStore and Google Play

In your pocket...

Offline mode
Check out the products and their documentation offline!

Your favourites
Find your selection of catalogue items and share it.

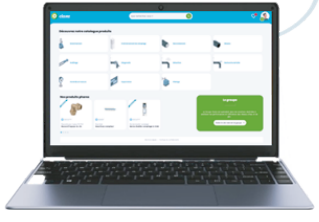
Your tools
- Search by QR code
- Flashlight

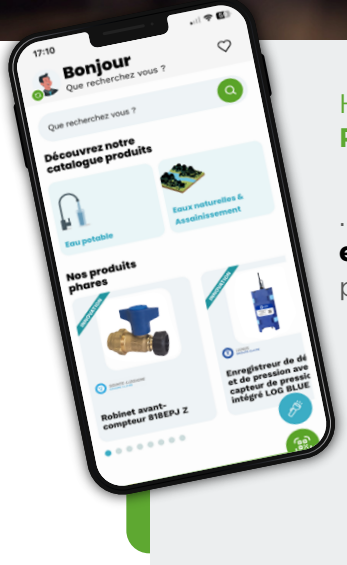
Product catalogue
The entire range of Claire equipment

The Produits_Claire application, your essential companion for finding:

- commercial and technical documentation
- step-by-step guides, video tutorials, etc.
- sharing by email

Claire App **PLATFORM**
to find the contents of the application at your desk





Hurry to discover **our Produits_Claire application**

... and explore **our range of equipment** for water network performance!

SCAN TO DOWNLOAD

SOLUTIONS | Destinations

SOLUTIONS PRODUCTS	Brand	Page
Display	IJINUS	68
AQUA - Leak pinpointer	FAST	40
BIDI - Loggers	FAST	38
BLUE & **BLUE LP** - Loggers	IJINUS	36
CNR/CNRT & **LOGV4 -** Level sensor & logger	IJINUS	24
Flow meter, ultrasonic, transit time	IJINUS	34
DRULO III - Logger	FAST	32
LNR06 - Radar technology level sensor	IJINUS	18
LNU06 - Ultrasonic technology level sensor	IJINUS	56
LOGAZ - H2S sensor	IJINUS	70
LOKAL 400 - Correlator	FAST	42
OSRAI FLOW & LNU06 - Height/flow rate converter & Flow rate sensor	IJINUS	58
OVERFLOW - Overflow sensor and logger	IJINUS	52
Physico-chemical - Autonomous GSM buoy	IJINUS	20
Physico-chemical - Logger	IJINUS	22
Amperometric clamp & LOGV4 logger	IJINUS	64
PIPEMIC - Leak & pipe pinpointer	FAST	44
RG20/RG25 - Rain gauge	IJINUS	16
SENSE - Network access point	SAINTE-LIZAIGNE	30
UB-V & LNU06 - Doppler speed sensor & Flow rate sensor	IJINUS	60
VLI & LOGV4 - Height/speed sensor & Logger	IJINUS	62
WAYVE - Connected boxes	WAYVE	46

Destinations

NATURAL WATER: Ground, Building; Watercourse; Bank, Bridge; Borehole; Pipes; Storm water basin

DRINKING WATER: Ground, Building; Water tower; Stop valve; After-meter; House connection, End user's meter; Inspection; Valve, tapping; Pump; Flow meter; Plastic pipe; Metal pipe; Fire hydrant

SEWERAGE, WASTE WATER: Sewerage pipe; Venturi channel; Pumping station; Storm water basin; Waste water treatment plant

SOFTWARE SOLUTIONS	Brand	Page
AVELOUR - Software application	IJINUS	76
AVELOUR REMOTE - Software application	IJINUS	86
IJITRACK - Platform	IJINUS	80
WATERCLOUD - App	FAST	78
WATERCLOUD - Platform	FAST	82

		Page
WAYVE - App	WAYVE	78
WAYVE - Platform	WAYVE	84
WIJI - App	IJINUS	78

SOLUTIONS | Measurement | Particularities

SOLUTIONS PRODUCTS	Brand	Page	Rainfall	High and Low water levels	Water tables	Water Quality	Leaks	Level	Pressure	Temperature	Flow	Metering	Noise	H2S gas	Continuous diagnostics	Regulatory self-monitoring	Communication	Real time	Temporary campaign	Works with pipes DN < 300	Works with pipes DN > 400	Locally	Remotely
			Measurements												Particularities								
Display	IJINUS	68		■	■										■	■		■	■			■	■
AQUA - Leak pinpointer	FAST	40					■						■					■	■			■	
BIDI - Loggers	FAST	38					■						■		■		■	■	■			■	■
BLUE & **BLUE LP** - Loggers	IJINUS	36							■		■	■			■		■		■			■	■
CNR/CNRT & **LOGV4 -** Level sensor & logger	IJINUS	24		■	■			■	■	■					■	■	■		■			■	■
Flow meter, ultrasonic, transit time	IJINUS	34								■					■				■			■	■
DRULO III - Logger	FAST	32							■	■					■			■	■			■	
LNR06 - Radar technology level sensor	IJINUS	18		■	■			■		■					■	■	■		■			■	■
LNU06 - Ultrasonic technology level sensor	IJINUS	56						■			■				■	■	■		■			■	■
LOGAZ - H2S sensor	IJINUS	70												■	■		■		■			■	■
LOKAL 400 - Correlator	FAST	42					■						■					■	■			■	
OSRAI FLOW & LNU06 - Height/flow rate converter & Flow rate sensor	IJINUS	58						■			■				■	■	■		■	■		■	■
OVERFLOW - Overflow sensor and logger	IJINUS	52						■							■	■	■		■			■	■
Physico-chemical - Autonomous GSM buoy	IJINUS	20				■				■					■		■		■			■	■
Physico-chemical - Logger	IJINUS	22				■				■					■	■	■		■			■	■
Amperometric clamp & LOGV4 logger	IJINUS	64									■				■		■		■			■	■
PIPEMIC - Leak & pipe pinpointer	FAST	44					■						■					■	■			■	
RG20/RG25 - Rain gauge	IJINUS	16	■	■	■										■	■	■		■			■	■
SENSE - Network access point	SAINTE-LIZAIGNE	30					■		■	■			■		■				■			■	■
UB-V & LNU06 - Doppler speed sensor & Flow rate sensor	IJINUS	60		■				■			■				■	■	■		■		■	■	■
VLI & LOGV4 - Height/speed sensor & Logger	IJINUS	62		■				■			■				■	■	■		■		■	■	■
WAYVE - Connected boxes	WAYVE	46					■			■	■				■		■	■					■

SOFTWARE SOLUTIONS	Brand	Page
AVELOUR - Software application	IJINUS	76
AVELOUR REMOTE - Software application	IJINUS	86
IJITRACK - Platform	IJINUS	80
WATERCLOUD - App	FAST	78
WATERCLOUD - Platform	FAST	82

		Page
WAYVE - App	WAYVE	78
WAYVE - Platform	WAYVE	84
WIJI - App	IJINUS	78

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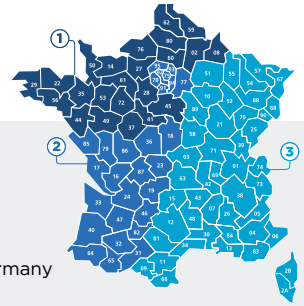

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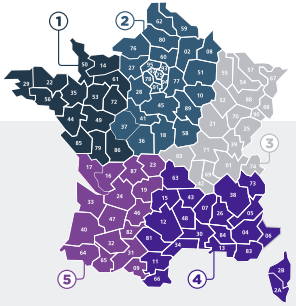

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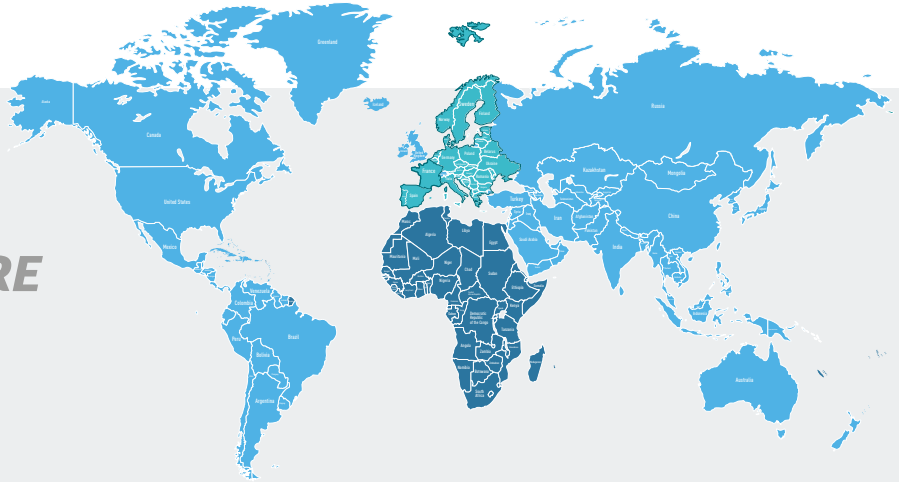

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