



# Sensor - Data Logger - Web services Wireless Remote Monitoring Solutions

## Environment catalog

Waste Water



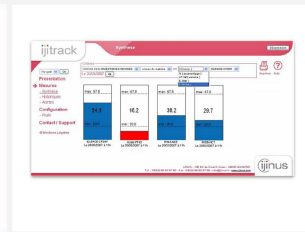
Container

Drinking Water



Software

Surface Water



Web Services

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# Sensor - Data logger - Web services

## Wireless Remote Monitoring Solutions

**IJINUS, specialist in physical wireless measurement and manufacturer of sensors and data loggers offer adapted and quick solutions to put in place to respond to multiple application domains:**

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## ► Diagnostic of sewers network



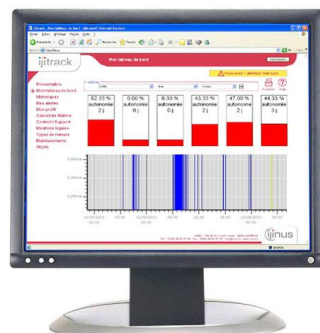
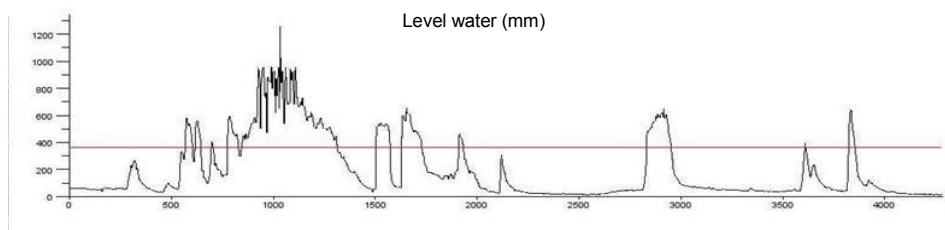
### 3 in 1 solution: Level - Volume - Flow

- Quick and **easy** installation
- Timestamp **volumes**
- **Battery life** power > 5 years
- Acoustic imaging technology
- **Non-contact** measurement of volumes
- **Insensitive to dirt** - IP68
- **Multiprotocol** communication
- Hosting data

### Measures water level / flow / volume



Ultrasonic  
Level Sensors



### With Ijitrack.com

- Hosting data
- Measurement points report
- History data
- Export data interface

## ► Combined Sewers Overflow Monitoring



### 3 in 1 solution: Level - Volume - Overflow

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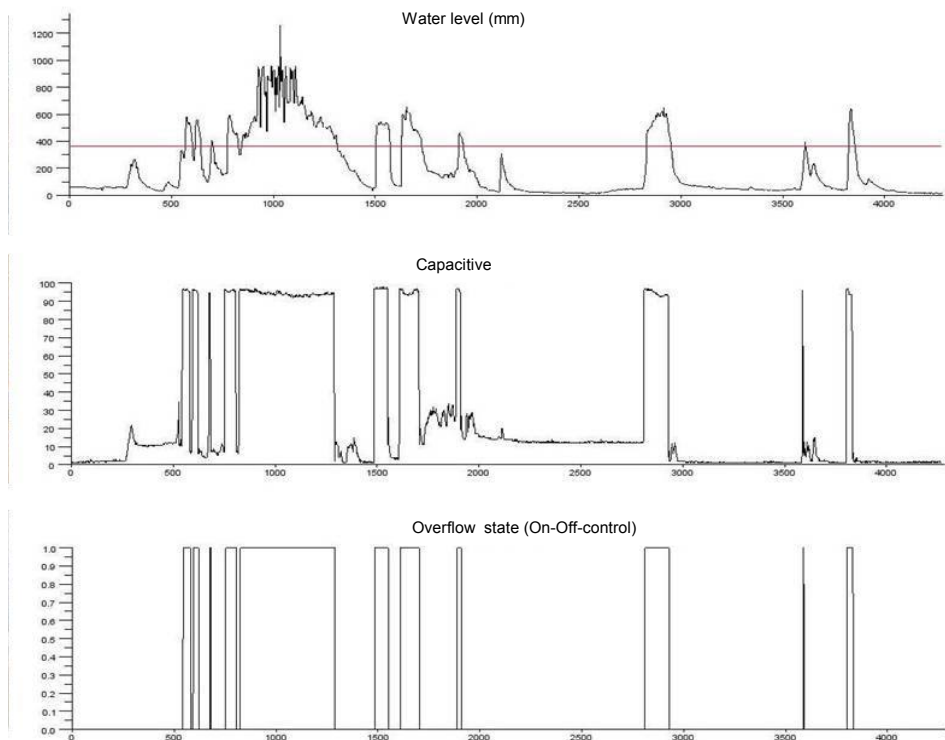
### Comparison measures water level / capacitive / On-Off-control



**Ultrasonic  
Level Sensors**



**Capacitive Overflow  
sensor**



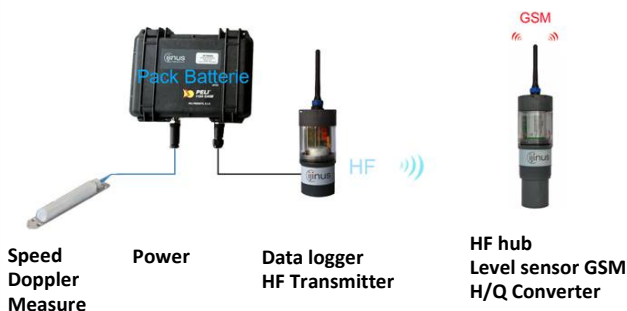
## ► Autonomous flow measurement from speed sensors and level/speed sensors



Level - Speed - Flow - Overflow -  
Measurement quality - Temperature

- Quick and easy installation
- Timestamp of all parameters
- Calculation of **integrated flow**
- **Autonomous system battery pack (Li-ion) or rechargeable lead**
- **One software** to set all
- Option: trigger action on overflow

### Autonomous stationary equipment installation or temporary measures: (two possibilities)



A level / surface conversion is made, then a flow rate calculation.

All data: height, speed, flow, quality signal are transmitted via GSM / GPRS.

✓ 1 to 5 years battery life

✓ Accelerate measures thresholds by overflow detector



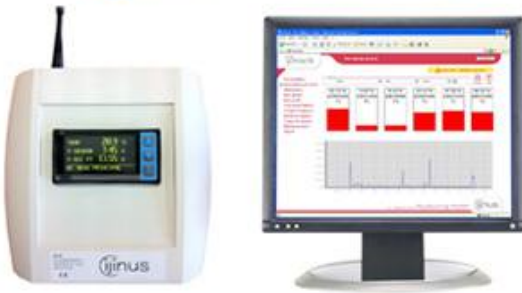


## ► Discharges monitoring from waste water treatment plants

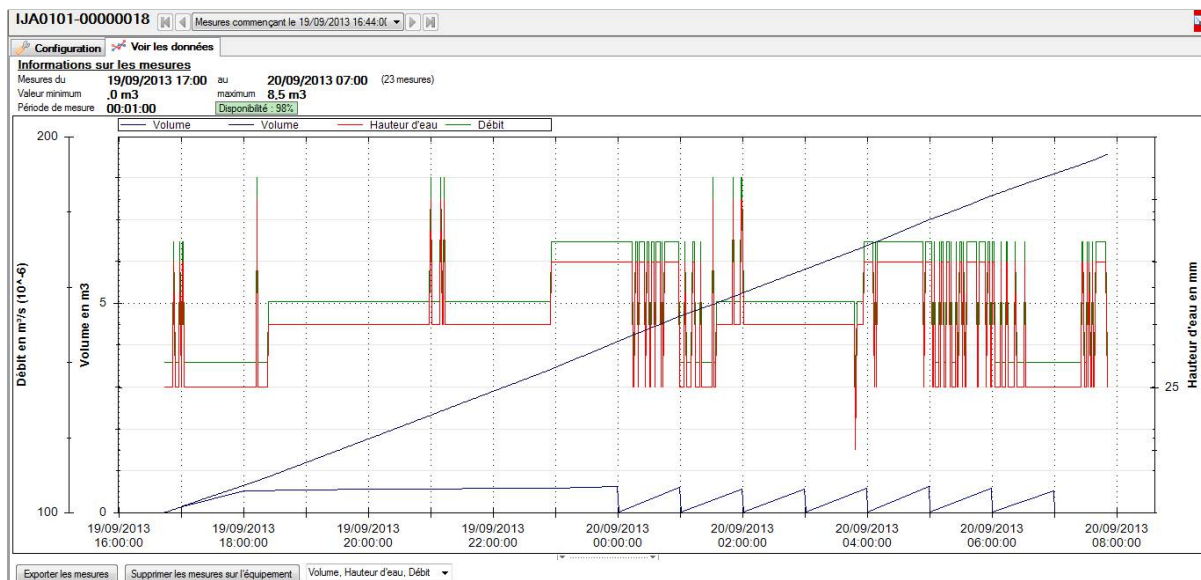


### Autonomous solution to control discharges in lagoon structure and reed filter

- Quick and easy installation
- Operates on battery
- Record level, volume, flow, rain
- Autonomous display for reading in situ current values
- Day volumes saved
- **Battery life power > 2 years**
- Acoustic imaging technology suitable for small channel count
- Automatic sampler enslavement
- **Insensitive to dirt**
- Hosting data possible



### Avelour Software 5: Measure comparison of volume / water level / flow

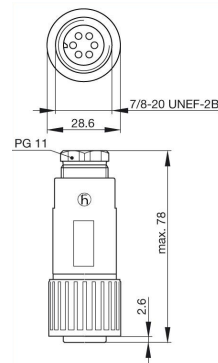


► Enslavement of a sampler by an capacitive level detector

Sampler



Connectivity



Overflow sensor

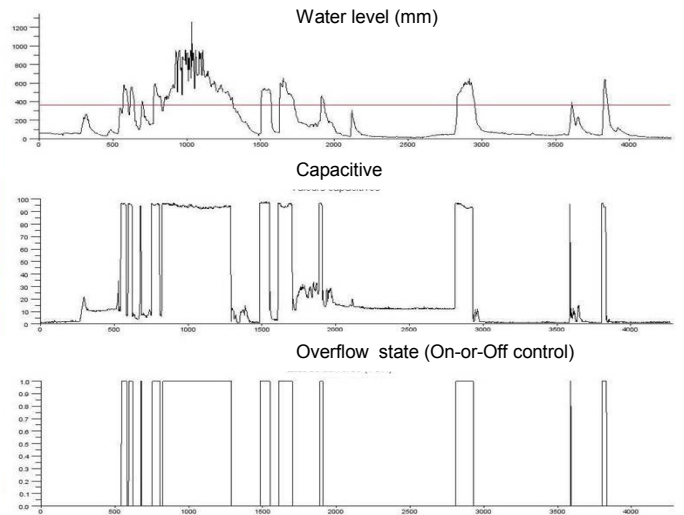


Ultrasonic Sensors



Capacitive Overflow Sensor

Comparison measures water level / capacitive / On-Off-control



Overflow detector:

- Measuring capacitive air repository for discrimination dirtying
- Operation of pulse output overflow or On-or-Off control NO/NC (Not Open/Not Closed)
- Ijinus patent: AIRCAP

## ► Modbus connection to PLC/control units



### The solution compatible with all controllers

- Quick and easy installation
- Automatic detection in the field by the radio access point
- Compatibility with Modbus RTU: 15 sensors
- Speed up level conversion
- Visualization on display up to 20 records
- Measurement of level, overflow, flow, speed, temp ...

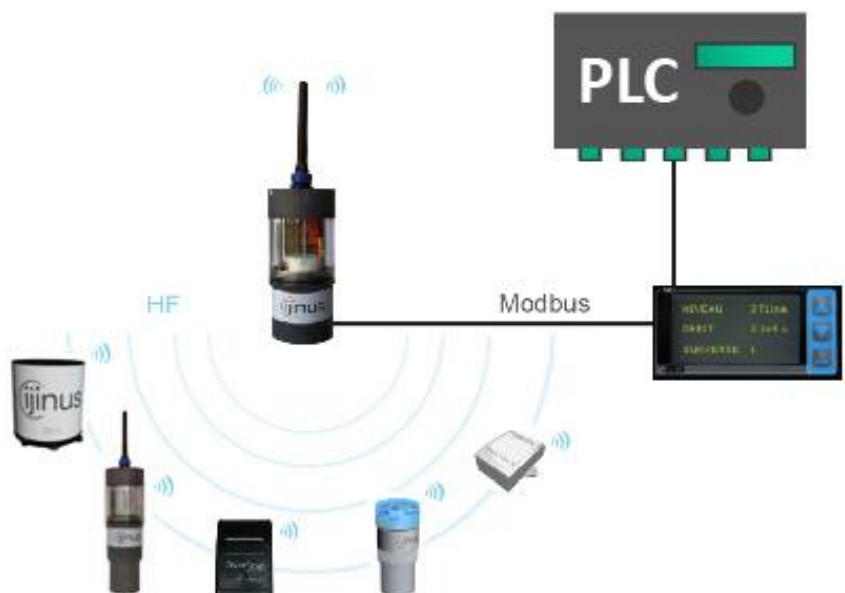
### Sensors (wireless) measure and send information by radio to display and PLC



Autonomous data logger



Modbus display







# Sensor - Data logger - Web services

## Wireless Remote Monitoring Solutions

### ► Flood warning and management



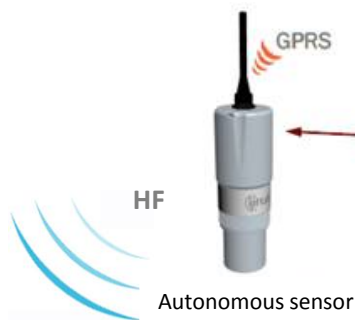
#### 3 in 1 solution: Level - Rain - Overflow

- **Quick and easy installation**
- Compact, light and **discreet** <1kg
- **Multiprotocol Communication**
- **Battery life power > 5 years**
- Set your equipment **safely by radio**
- Measurement of water levels **contactless**
- **Low installation cost**
- **Self contained rain gauge including data logger, transmitter and batteries**

Wireless level sensor measure and concentrate data of all devices in the area and sends the information and alerts to supervisor of rises



**Ultrasonic Level Sensors**



**Autonomous sensor**



**Autonomous rain gauge**



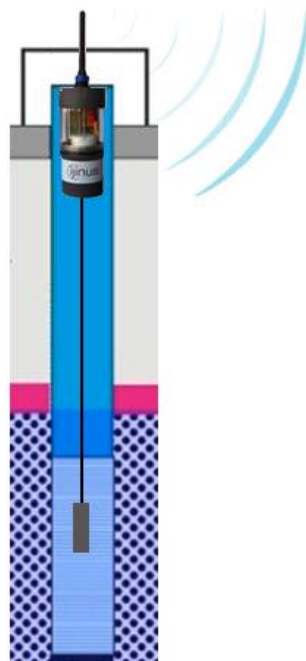
**Overflow sensor**

## ► Autonomous and communicating monitoring of groundwater by piezo probe

Autonomous data logger  
(Lithium battery replaceable)

Relative pressure sensor  
Range from 1 to 200 mH<sub>2</sub>O

Small volume:  
64 mm diameter, 182 mm height



Radio programming/retrieving  
or data transmission via GSM / GPRS

## Autonomous solution for monitoring groundwater

- **Easy, quick** and discreet installation
- With or without GSM
- Price control
- Operates on battery
- Level recorder
- Rain gauge couplage by radio possible
- **Battery life power > 5 years**
- **Hosting data possible**



## ► Autonomous rain gauge GSM/GPRS

### The whole integrated solution for recording rain



Radio programming / retrieving



Autonomous rain gauge tipping troughs



- Quick and easy installation
- Self contained rain gauge including data logger, transmitter and batteries
- Retrieving data by radio on-site
- Battery life power > 6 years
- Timestamp or accumulated precipitation operation, temperature
- Export data to Csv, Excel or HTML
- Multiprotocol communication



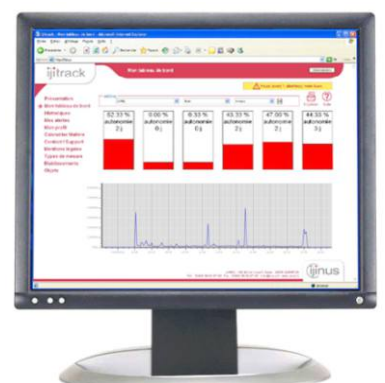


► Instrumented Buoys with GSM/GPRS for lakes, rivers and seawater

The all in one solution mono-parameter  
Only one person for installation



- Possible measure: Conductivity / Salinity / T°  
ORP / PH / T°  
O<sub>2</sub> / T°  
Turbidity / T°
- Compact and self-stable buoy
- Battery life power > 5 years:  
1 measurement / 15 min and 1 sending GSM / day
- Quick and easy installation - on-site calibration
- Integrated GSM for monitoring data by internet or supervision
- Retrieving data by radio on-site
- Dynamic communication between several buoys



► Data logger & physico-chemical probes for natural water monitoring



The all in one solution mono-parameter

- **Integrated GSM** for data tracking by internet
- Data logger **400,000**
- **Quick and easy** installation
- Reduced **maintenance**
- **Battery life** power > 5 years:  
a measurement / 15 min and 1 sending GSM / day
- **Calibration** on-site simplified
- On-site data retrieval by **radio**





## ► Remote control and management of bin fill levels



### Emptying only full containers

- Underground containers, semi-underground, aerial
- Optimize round collection
- **Sensor levels communicating with GSM / GPRS**
- **Multiprotocol communication**
- **SMS Alarms** filling and high T ° C
- **Battery life power > 5 years**
- **Low installation cost**

Master level sensor measure and gather (wireless) information from other nearby slaves sensors to send reports and alarms for data exploitation



## ► Monitoring and management of storage tanks



### Autonomous level management solution

- Underground tanks, semi-buried, aerial
- Easy to install
- **Sensor level communicating with GSM / GPRS**
- **Multiprotocol communication**
- **SMS Alarms** filling and high T ° C
- **Battery life power > 5 years**
- **Low installation cost**

Master level sensor measure and gather (wireless) information from other nearby slaves sensors to send reports and alarms for data exploitation

#### 1 Measurement and GSM / GPRS Transmission



**GSM / GPRS  
Ultrasonic level sensor  
Slave and Master**

#### 2 Data Exploitation

By internet on  
[www.ijitrack.com](http://www.ijitrack.com)



Or by radio directly on site



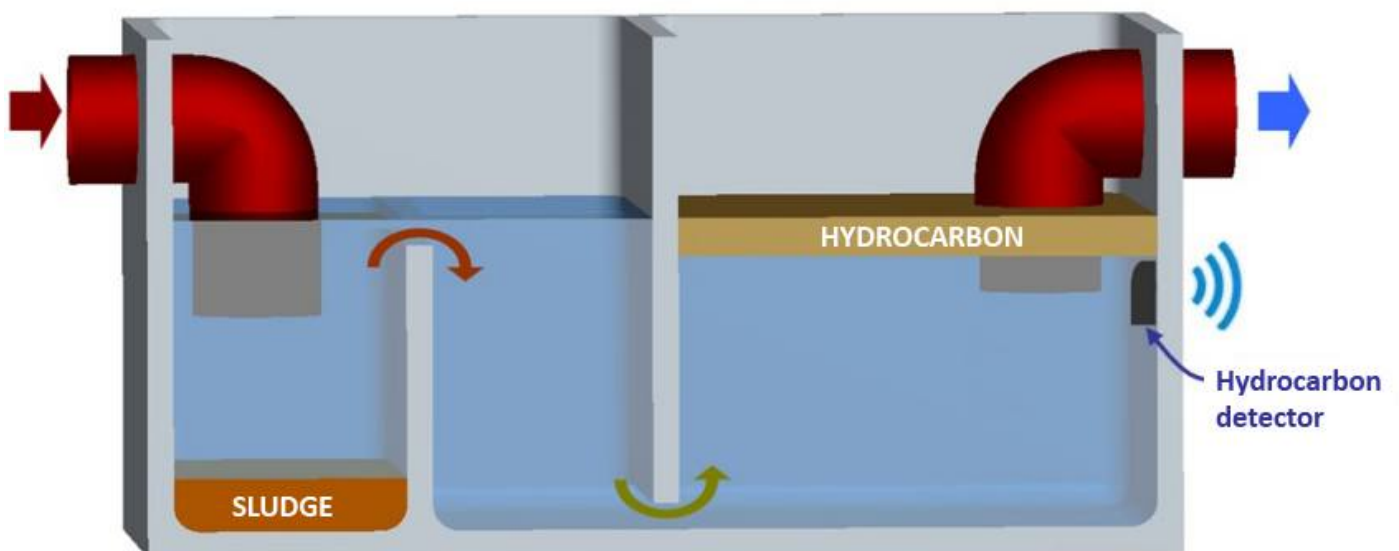
## ► Monitoring of hydrocarbon separators

### 3 in 1 solution: Detection - Autonomous - Communication



- **Quick and easy** installation
- Power **autonomous**
- Measure the dielectric capacitive effect
- Capacitive technology at Air repository
- IJINUS patent
- **HF** communication

Hydrocarbon separator



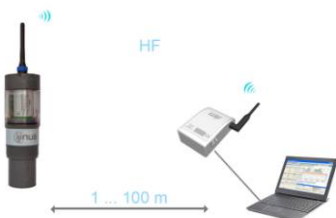
► Avelour software

Unique software to configure all Ijinus sensors



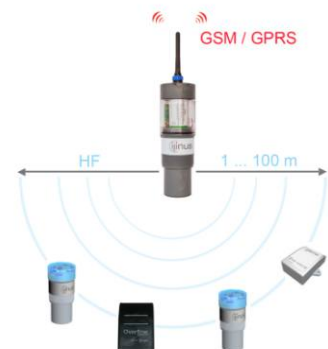
- **Instant** radio connection to sensors
- Intuitive interface adapts to connected sensors
- Assisted Setup and Quick, **recapitulation summary**
- **Multi curves display** of your data
- Back-up available for data and settings
- **Work safely** by staying away from your measurement points

Functioning rules are the same for all devices:



Our Wiji radio plugged (USB) to a computer allows by RFID, to connect to various Ijinus devices, to set and retrieve data.

A sensor or data logger can concentrate other data of sensors present in the radio field and send them via GSM / GPRS to supervision.



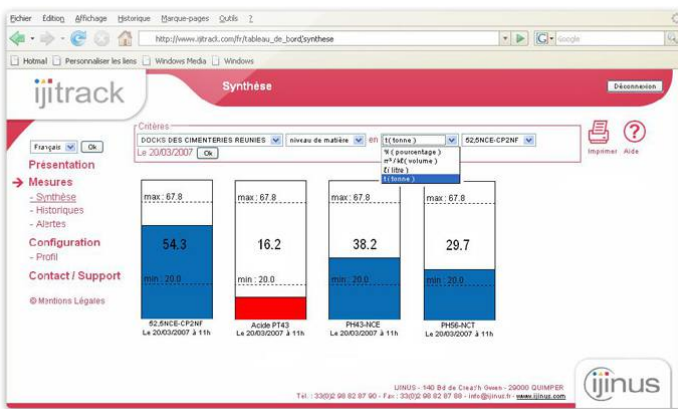


# Sensor - Data logger - Web services

## Wireless Remote Monitoring Solutions

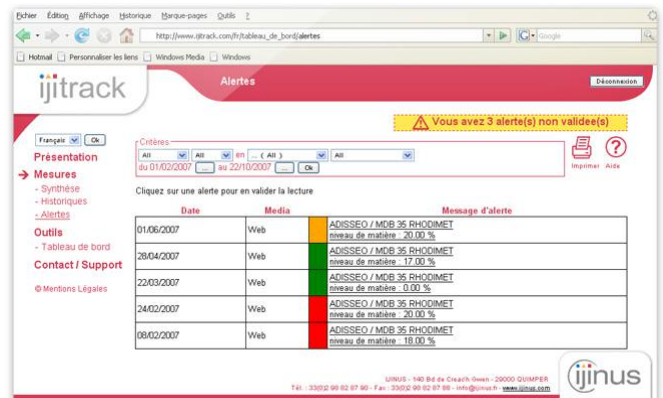
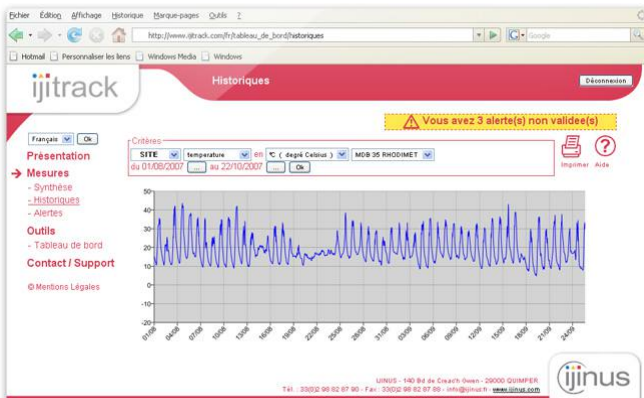
### ► Web Services

### More than hosting data



- Simple and intuitive interface
- Reachable everywhere
- Securing Data
- View real-time
- Export datas to Csv, Xls formats

### Hosting and secure data at reduced price



Ijitrack allows you to **generate alarms** on level, overflow, tension, unusual parameters. For each alarm you can set a high and low threshold. Alarms are visible on **ijitrack.com** and can be transmitted by **mail, SMS** or Fax.





## Sensor - Data logger - Web services Wireless Remote Monitoring Solutions

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