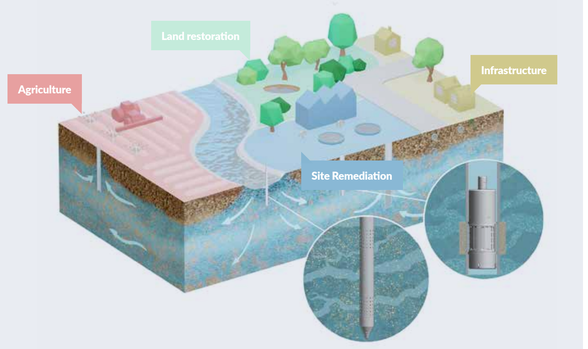
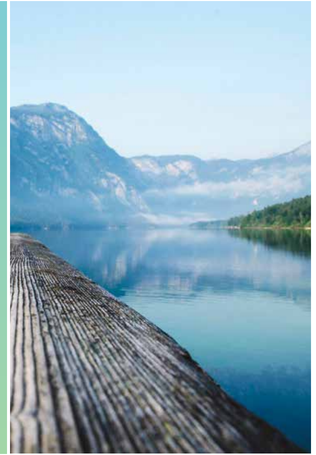


Why iFLUX?

- Real-time sensors **reduce response times** and enable proactive **groundwater management**.
- By **post-processing** and combining data based on our groundwater expertise we deliver clear **information** instead of raw data.
- We have experience with **several types of sensors**, including our **in-house developed groundwater flux sensors**.
- For each groundwater challenge we offer **monitoring solutions** tailored to your needs and budget.
- We **calibrate** the sensors ourselves to guarantee high quality measurements.



About iFLUX?

iFLUX aims to improve groundwater management by giving this invisible resource visibility. By combining and analysing real-time data, iFLUX delivers crucial information to authorities, environmental consultants and industries on how to manage groundwater.

iFLUX is a spin-off company of the Flemish Research and Technology Organization (VITO) and the University of Antwerp. For many years dr. Goedele Verreydt, a well-known groundwater monitoring expert, managed several research and development projects that ultimately led to the creation of the unique iFLUX technology.

Are you interested in more information?
Let's meet and you can discover how IFLUX will improve your groundwater management.
www.ifluxsampling.com

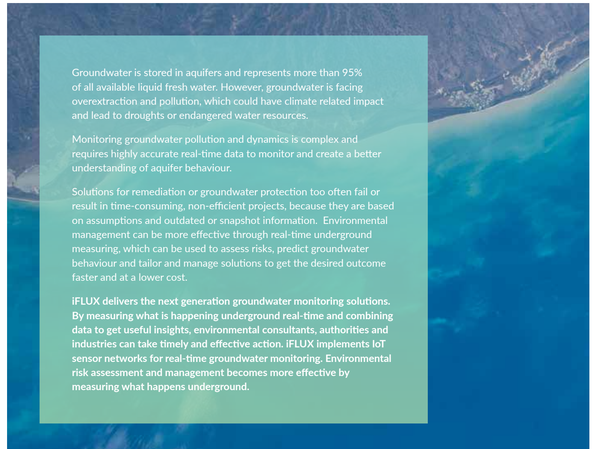
iFLUX
Science Park Antwerp – Galileilaan 15 – 2845 Niel, Belgium
info@ifluxsampling.com - +32 499 53 92 91 - +32 3 443 05 31

iFLUX

PATENTED TECHNOLOGY

DYNAMIC GROUNDWATER MONITORING

We measure and visualize real-time groundwater flow and quality to enable data driven groundwater management



Groundwater is stored in aquifers and represents more than 95% of all available liquid fresh water. However, groundwater is facing overextraction and pollution, which could have climate related impact and lead to droughts or endangered water resources.

Monitoring groundwater pollution and dynamics is complex and requires highly accurate real-time data to monitor and create a better understanding of aquifer behaviour.

Solutions for remediation or groundwater protection too often fail or result in time-consuming, non-efficient projects, because they are based on assumptions and outdated or snapshot information. Environmental management can be more effective through real-time underground measuring, which can be used to assess risks, predict groundwater behaviour and tailor and manage solutions to get the desired outcome faster and at a lower cost.

iFLUX delivers the next generation groundwater monitoring solutions. By measuring what is happening underground real-time and combining data to get useful insights, environmental consultants, authorities and industries can take timely and effective action. iFLUX implements IoT sensor networks for real-time groundwater monitoring. Environmental risk assessment and management becomes more effective by measuring what happens underground.

Our technology: we measure…

PATENTED TECHNOLOGY

Water Flow

Mass Flux: Our iFLUX sampler is based on the principle of the passive flux meter. It can measure groundwater and contaminant fluxes simultaneously over a period of time.

Water Flow: We developed a real-time digital sensor to measure groundwater flow velocity and direction continuously. Measured flow and direction can be visualized real-time.

Water Level

We continuously measure water level, pressure and temperature, using **water level monitoring solutions** to suit every project and budget. We are independent from water level logger manufacturers which enables us to select optimal sensors for the task at hand. Depending on the project's needs, we look for a sensor level that matches the **required detection limit**.

Water Quality

We work with several water quality sensors to monitor:

- Nitrate
- Conductivity (CTD sensors)
- Multiparameter: PH, conductivity, oxygen level, …

Soil Moisture

We use a datalogger that measures air and soil temperature as well as soil moisture. They are ideal for long-term measurements over large areas in harsh conditions with minimal maintenance."

The sensors are connected via an NBIoT communication logger. The collected data are transmitted to our database for analysis and visualization in your personal dashboard.

iFLUX monitors for…

iFLUX offers key expertise and services for integrated groundwater management to support site remediation, smart agriculture, effective restoration and the water industry & infrastructure.

Site Remediation

iFLUX technology makes understanding the **evolution of groundwater contaminants** in time and space possible. The technology characterizes the contamination, taking into account the underground dynamics. This results in a **better understanding** and in **more comprehensive conceptual site models**.

This information is used to quantify risks, to manage the contamination, to efficiently and effectively design and follow up remediations and even to close projects in time with maximal certainty and minimal risks.

iFLUX helps:

- Determine spreading risk
- Optimize remedial design
- Shorten after-care monitoring

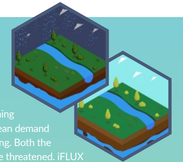
Agriculture

Water is an indispensable resource for agriculture. High groundwater demand means less water is available for crops. This makes efficient water use even more important. That's where iFLUX comes in. To manage water use, improve **fertilization efficiency**, **prevent nitrogen loss** and to **prevent nitrate leaching** into ground- and surface water, iFLUX measures groundwater movement and quality. The measured data is used as input for comprehensive water management solutions that are often nature based, with optimal (re)use of water and water quality preservation.

iFLUX helps:

- Ensure water supply
- Monitor nitrate run-off
- Manage water drainage and irrigation

Land restoration



Drought is no longer solely a southern problem. It is becoming painfully clear that the European demand on fresh water is also increasing. Both the water **quantity and quality** are threatened. iFLUX offers solutions to manage and control these risks.

We quantify the exchange between different layers and interfaces of water (e.g., between surface water and groundwater or saltwater and fresh water…). That way, environmental change can be managed with tailored actions. And the effectiveness of these measures can be monitored.

A direct consequence of the increasing drought is **salinization**. iFLUX technology allows smart groundwater management to protect our freshwater supplies, to safeguard the boundaries between fresh and salt water, to prevent salt water from intruding in fresh water areas and to develop and monitor mitigation measurements.

iFLUX helps:

- Consult for nature conservation
- Manage drought risks
- Screen diffuse pollution
- Control salt water intrusion

Infrastructure

Water is becoming a valuable resource and the water industry is transitioning to both reduce the use and re-use water. With the growing population, the water demand is proportionally rising.

iFLUX technology allows **quality and quantity water monitoring** and strives for **smart groundwater management and related infrastructure** with an optimal return to the water industry and the entire ecosystem.

The dewatering industry especially, is looking for a more automated and energy-efficient solution to dewater construction sites and to re-circulate or infiltrate pumped groundwater for irrigation or restoration.

iFLUX helps:

- Install circular groundwater use
- Determine infiltration capacity
- Monitor environmental impact
- Develop smart dewatering systems