www.iFLUX.be

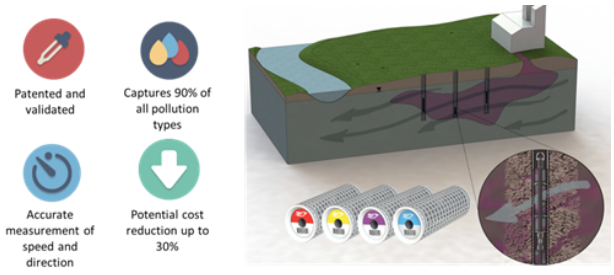
www.isodetect.de

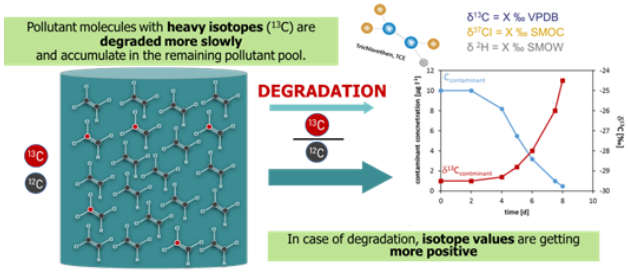
IsoFLUX

The next step in environmental monitoring

IsoFLUX: degradation + real transport = faster, cheaper, defensible remediation

IsoFLUX merges iFLUX's time-integrated groundwater and contaminant flux data with Isodetect's compound-specific isotope analysis (CSIA) to deliver proof of real degradation plus the transport metrics that drive risk and cost. You get quantified in-situ degradation rates, mass and water flux, preferential pathways, and source contributions—everything needed to build a regulator-ready case, predict receptor impact timelines, and design lean, targeted remediation that saves time and money.





iFLUX
Flux measurements you can act on

- Measures water flux and contaminant mass flux over time (not just snapshot concentrations).
- Reveals where the mass actually moves, the magnitude of that movement, and preferential pathways.
- Provides the transport inputs that risk models and design decisions need (mass loading, direction, and time-averaged behavior).

Isodetect
CSIA you can trust

- Uses stable isotope fingerprints to prove true in-situ degradation (bond-breaking), not just dilution or sorption.
- Helps differentiate sources and quantify each source's contribution—critical for liability and cost allocation.
- Delivers rate evidence that strengthens decisions on monitored natural attenuation (MNA) or targeted active measures

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Workflow

1. Scope & targeting: select contaminants and monitoring points.
2. Field deployment: install IsoFLUX samplers for time-integrated flux capture.
3. Analysis: determine water/mass flux and isotope ratios for target compounds.
4. Integrated interpretation: combine transport and CSIA to quantify degradation rates, mass loading, and source contributions.
5. Actionable outputs: regulator-ready report, time-to-receptor estimates, and a targeted, cost-efficient remediation plan.

Advantages of combining flux with CSIA

1) Decisions with confidence

Flux tells you how much mass is moving and where; CSIA proves how much is being destroyed. Together they yield defensible degradation rates + transport, the core of credible risk forecasting.

2) Faster, leaner remediation design

Pinpoint hot pathways (flux) and avoid over-engineering by focusing measures where they matter, informed by verified biodegradation (CSIA). This shortens timelines and reduces spend.

3) Regulator-ready evidence

Pairing time-integrated flux with isotope-based proof of degradation produces clear, audit-proof documentation for permits, remedy selection, and progress reporting.

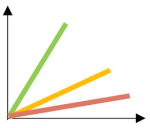
4) Receptor protection you can quantify

With real mass flux and rate evidence, you can estimate time-to-receptor and residual risk more accurately—improving stakeholder trust and compliance outcomes.

5) Source clarity and fair cost sharing

Isotope fingerprints linked to measured mass flux support forensic attribution and cost partitioning among responsible parties

Precise determination of pollutant flux reduction



Quantification of in situ pollutant degradation

Easy to sample

Lower costs

When to choose IsoFLUX

- Chlorinated ethenes and aromatics where MNA claims must be proven.
- Complex sites with mixed sources, variable hydraulics where snapshots miss the real picture.
- Permitting and compliance cases requiring transparent, quantitative evidence of progress and risk reduction.

Want to see how IsoFLUX would change your site decisions? Book a 30-minute review with our team to map flux, confirm degradation, and identify the quickest, lowest-cost path to compliance.