

Nationwide exploratory campaign on groundwater quality to support the revision of the national surveillance order: the case of pesticide metabolites (France)

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As part of a forward-looking initiative focusing on groundwater, co-funded by the water agencies and offices and OFB (Office Français de la Biodiversité), the 2026–2027 national campaign will undertake an in-depth investigation into organic molecules that have been poorly or not at all studied, across the whole of France – including mainland and the overseas – with a particular focus on pesticide metabolites as well as PFAS (per- and polyfluoroalkyl substances).

REGULATORY CONTEXT

- Ongoing revision of the Water Framework Directive and national act
- National PFAS plan - action 3: to improve our understanding of the impregnation of media

OF INTEREST

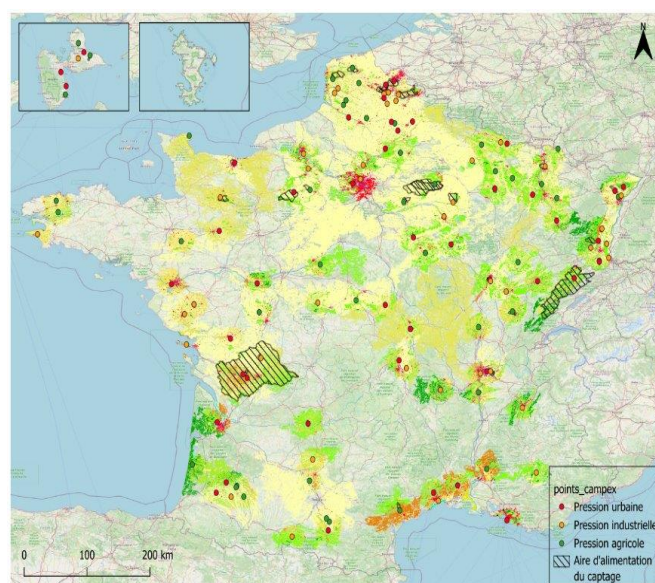
- Focus on persistent and mobile molecules, which may pose a risk to groundwater
- PFAS, including ultra-short-chain (USC-PFAS),
 - Pharmaceutical compounds and everyday household products
 - Pesticide metabolites that have been poorly or not at all studied

SELECTIONS

Studied sites

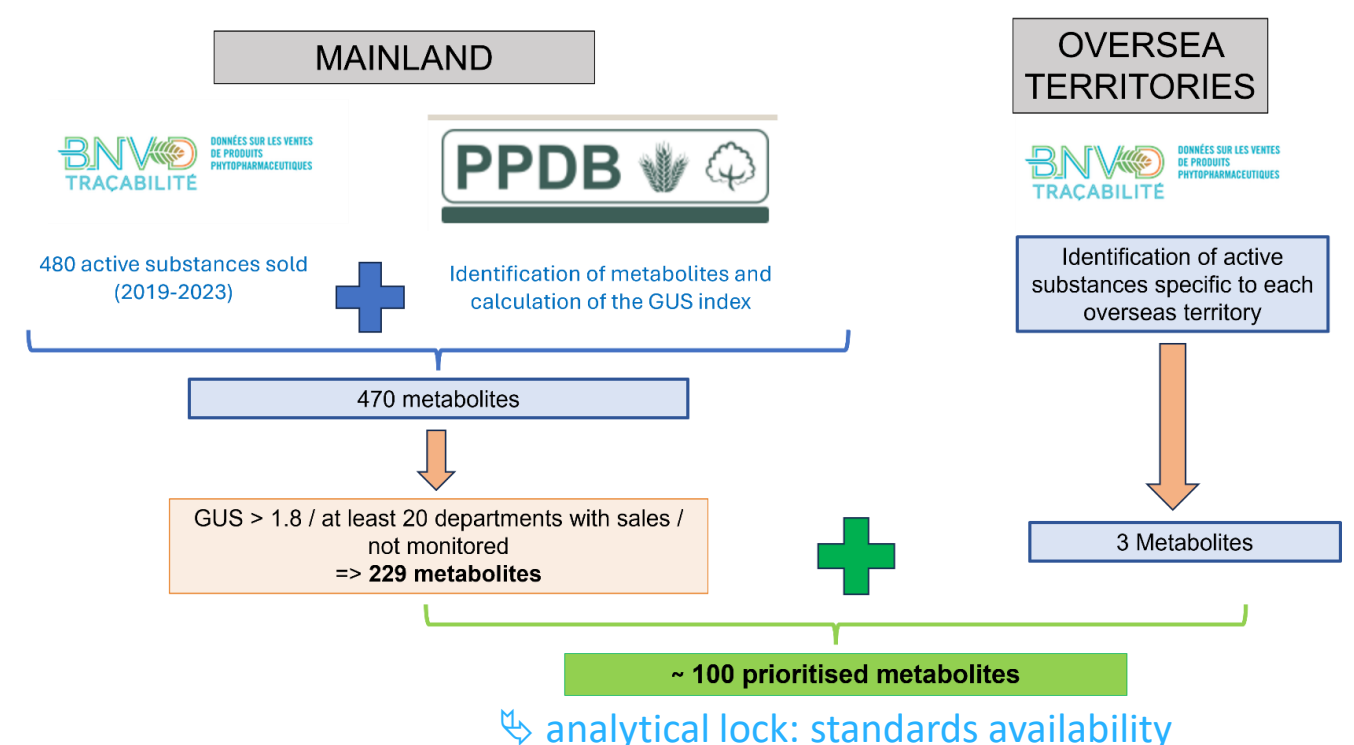
171 sites under various pressures (agricultural, urban, industrial, mixed)

126 are in mainland;
45 in the overseas territories

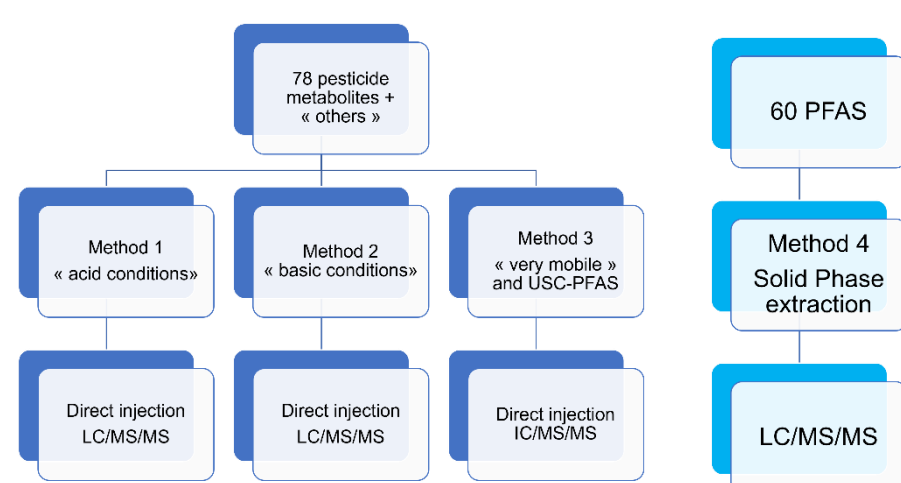


Campaign 1 (achieved): March-April 2026
Campaign 2: September – November 2026

Prioritisation of compounds

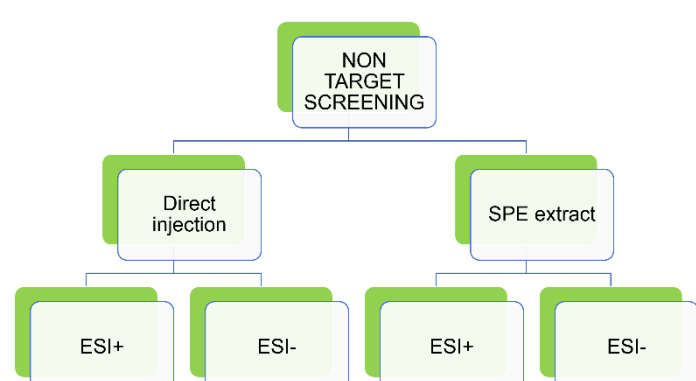


ANALYTICAL METHODS: targeted and non targeted analyses



QA/QC

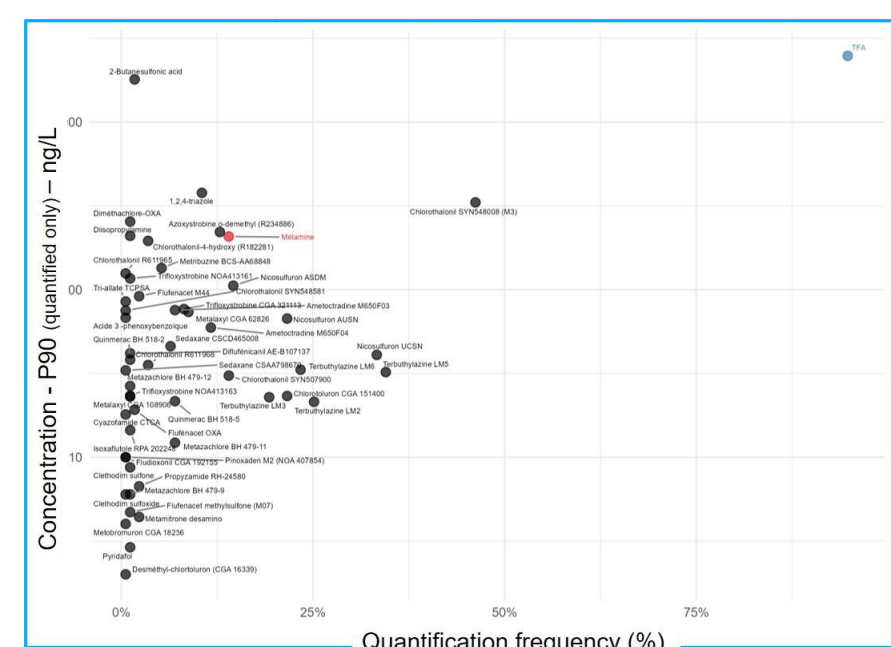
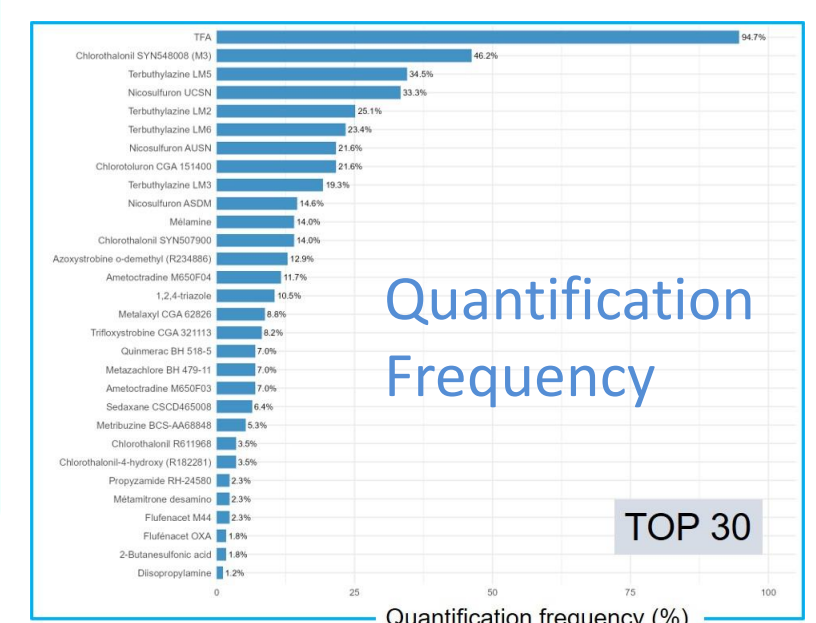
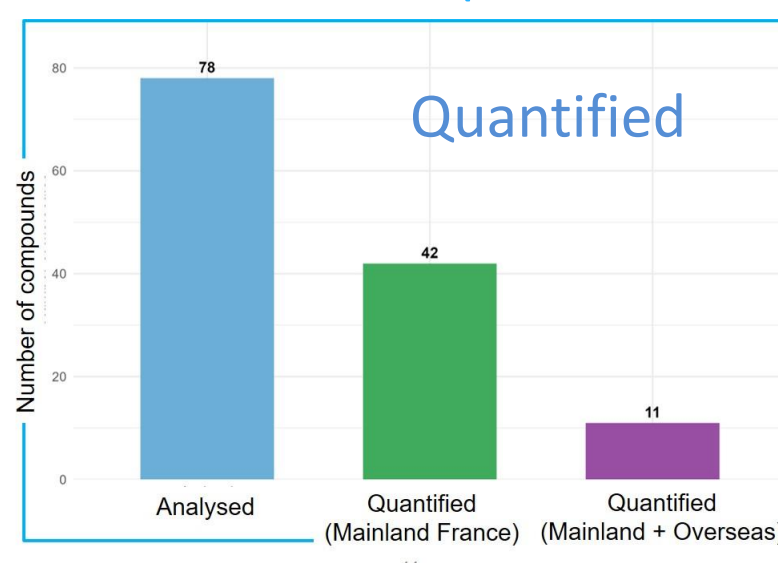
- Method validation: accuracy evaluation on real samples (including limit of quantification- LOQ : 2-30 ng/L)
- Stability tests (between sample collection and analysis)
- Quality control: blanks and recovery tests in each batch, approx. 40 internal standards



QA/QC:

- blank, RT Index, internal standards, control solution
- compilation of an expanded list of suspects: creation of a database on identification criteria

PRELIMINARY RESULTS (Pesticide metabolites – targeted analysis)



Concentration vs. Quantification

On going :
2nd sampling campaign
Suspect screening data treatment