



Comment s'assurer de la qualité d'une base de données géochimique collectée dans le cadre de l'application d'une réglementation concernant la protection des sols ?

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Soil Science and Environment Geochemistry, Earth and Life Institute,
Université catholique de Louvain,
Belgique



Belgique et Wallonie

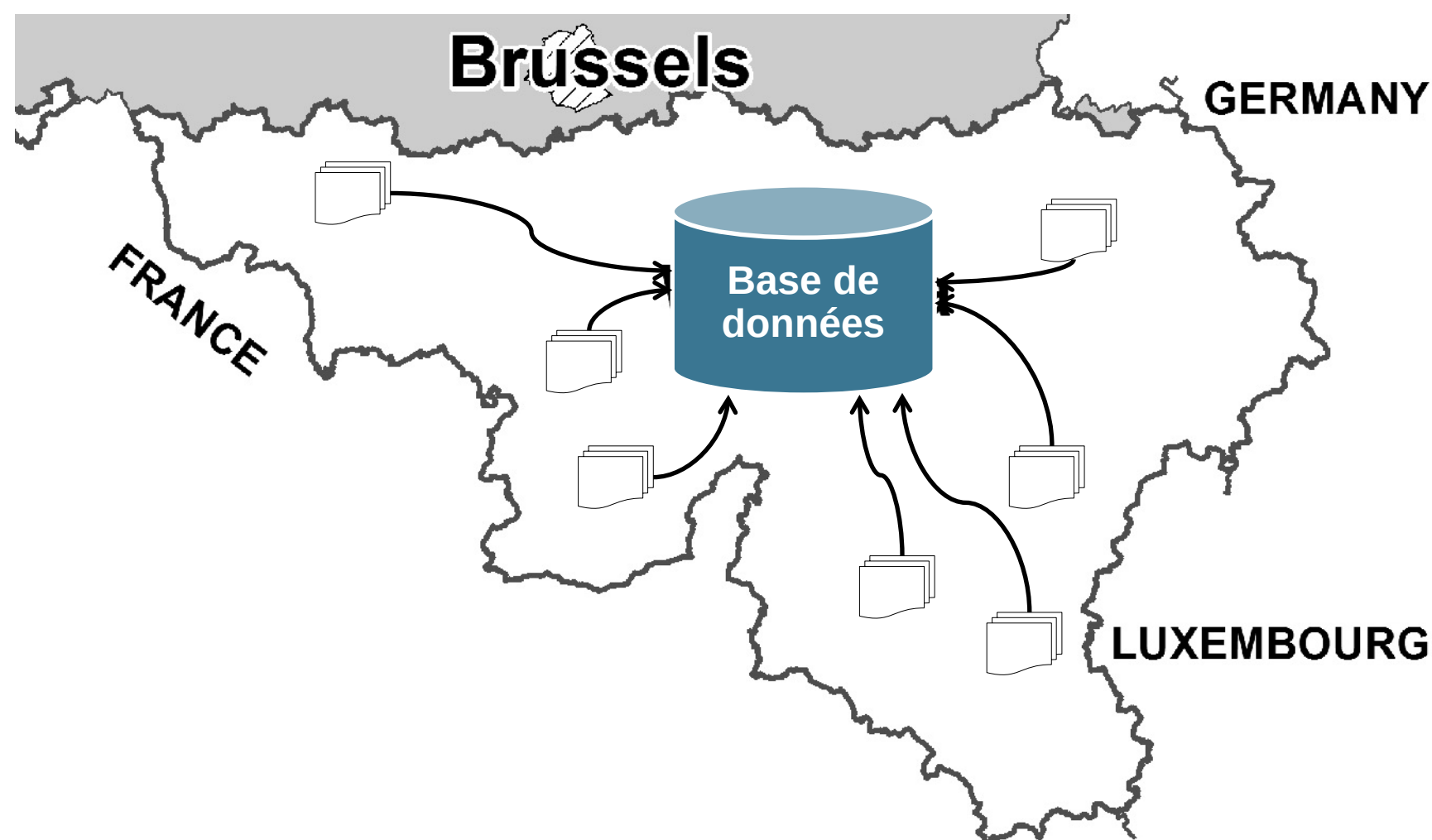




Réglementations et données “sols”

Réglementations à l'origine de données géochimiques :

- Décret pour la gestion des sols (M.B. 18.02.2009)
- Arrêté pour l'utilisation des boues d'épuration (A.G.W. 12/04/95)



Bulletin d'analyse

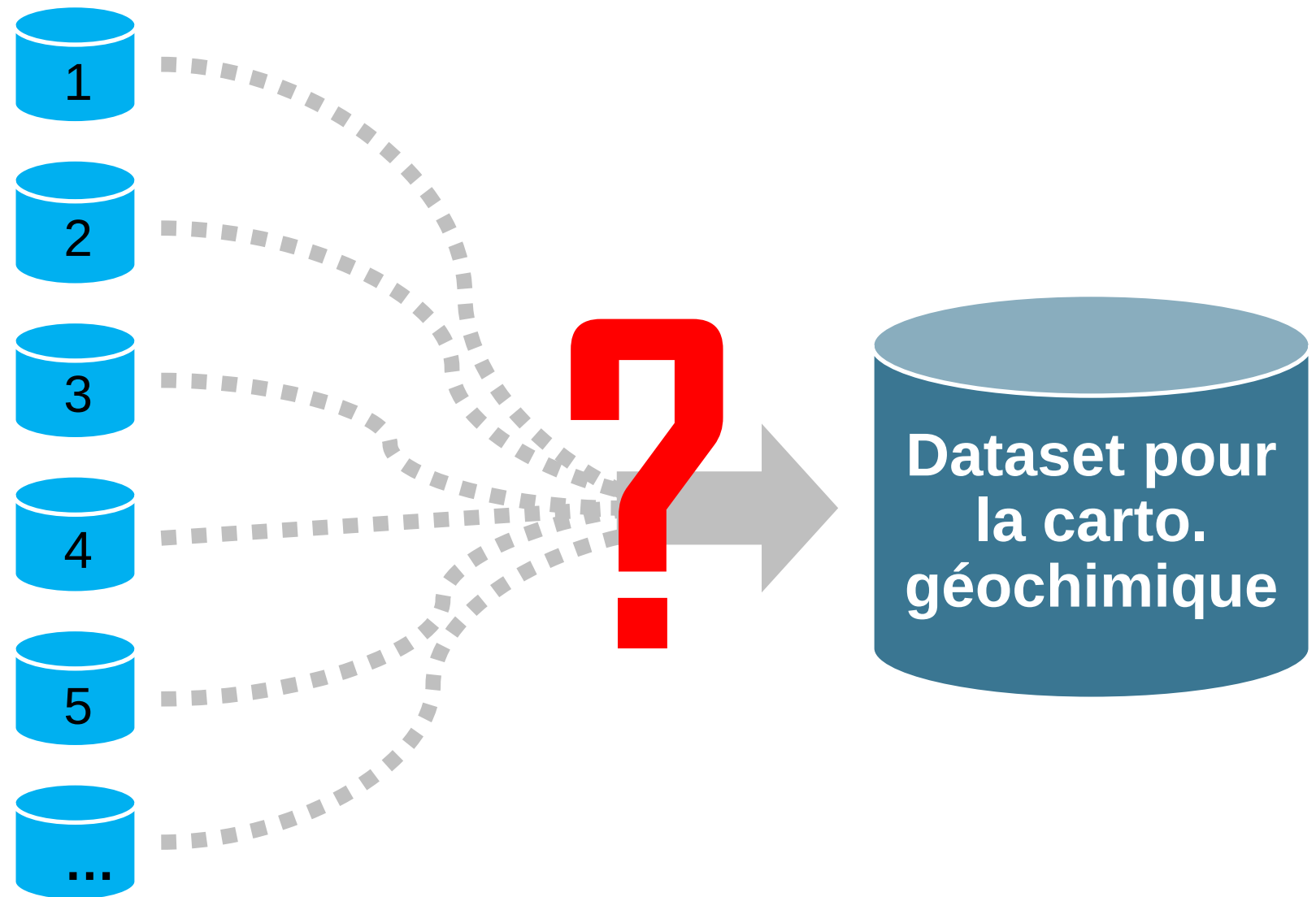
X	Y	Zn
12518	54561	65

Objectif

Ex. de dataset :

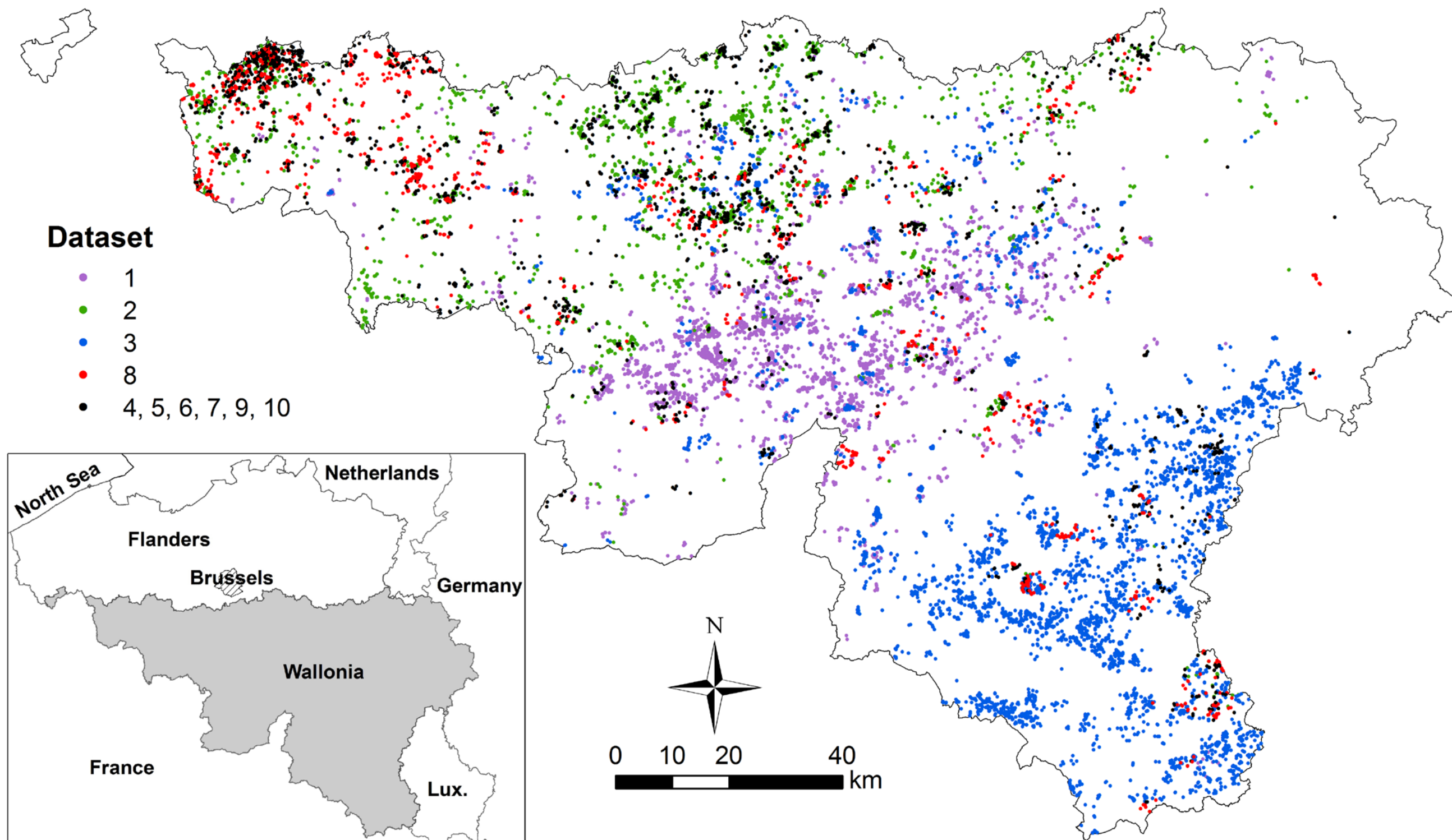
ID	X	Y	Zn	Pb	...
1	12518	54561	65	28	...
2	12929	54896	59	26	...
...	...	...	...	...	...

Dataset



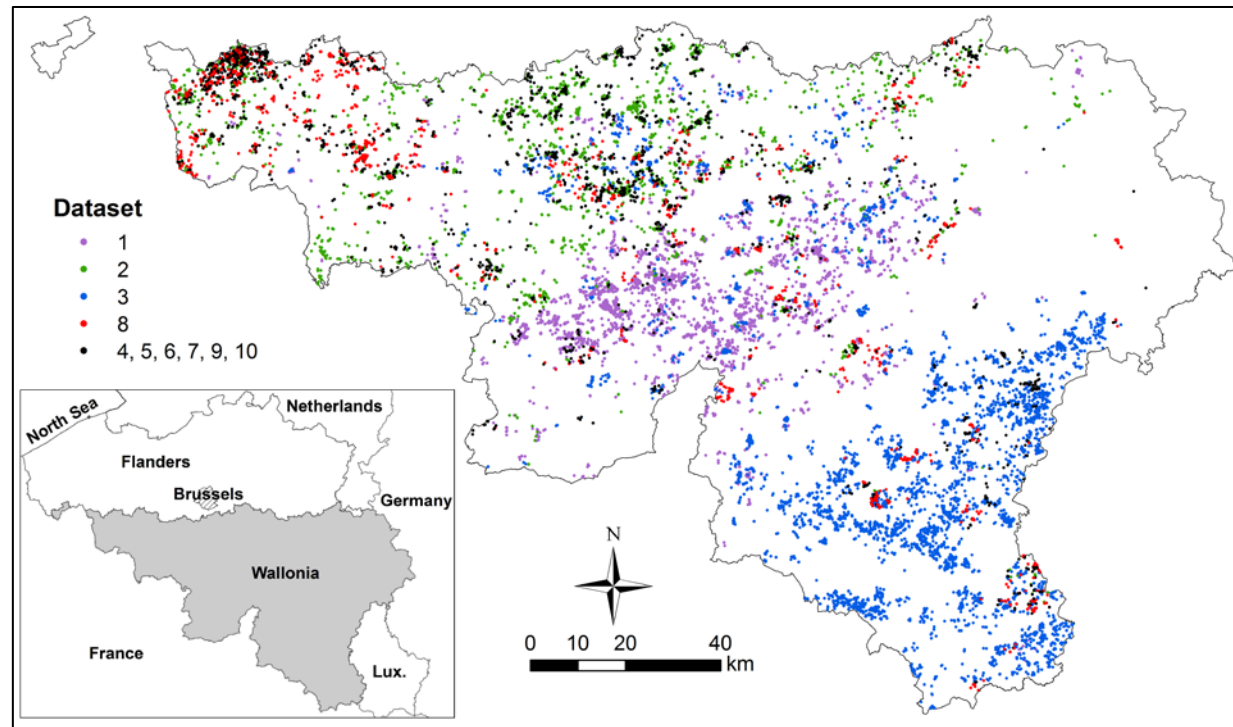


Base de données CAPASOL

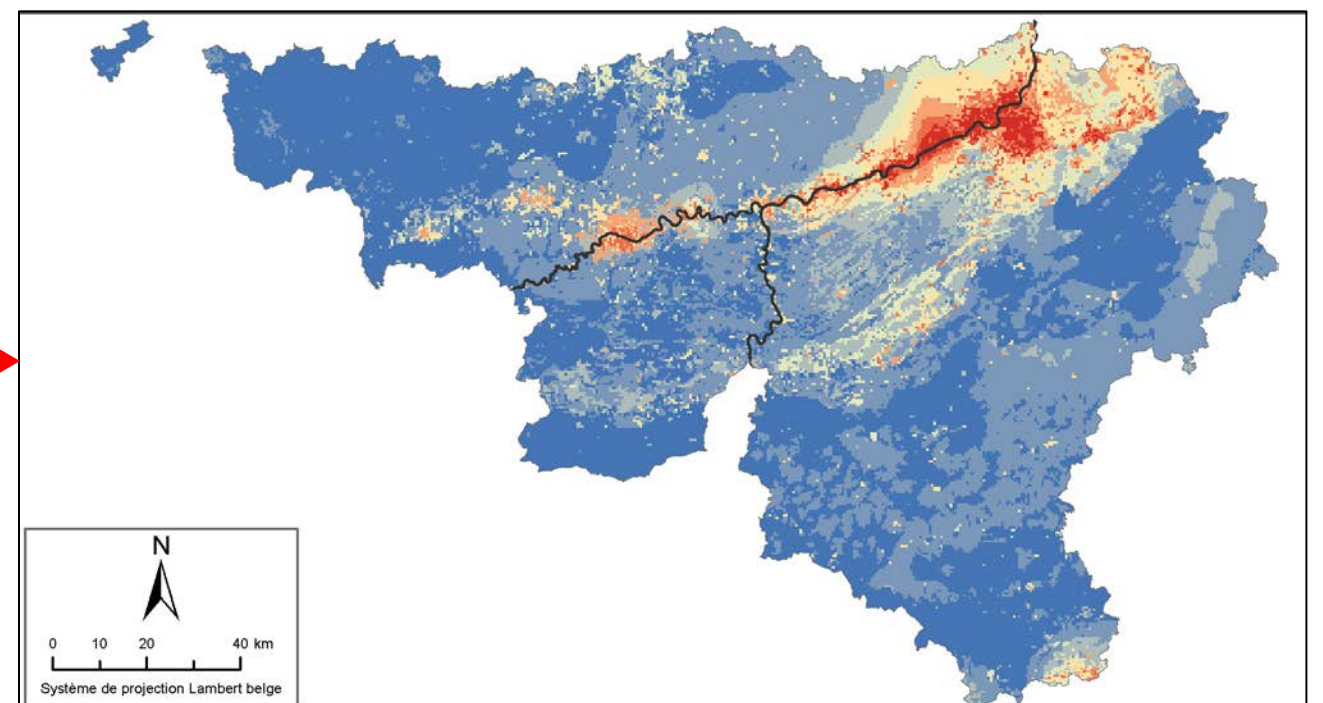


Objectif

Base de données CAPASOL



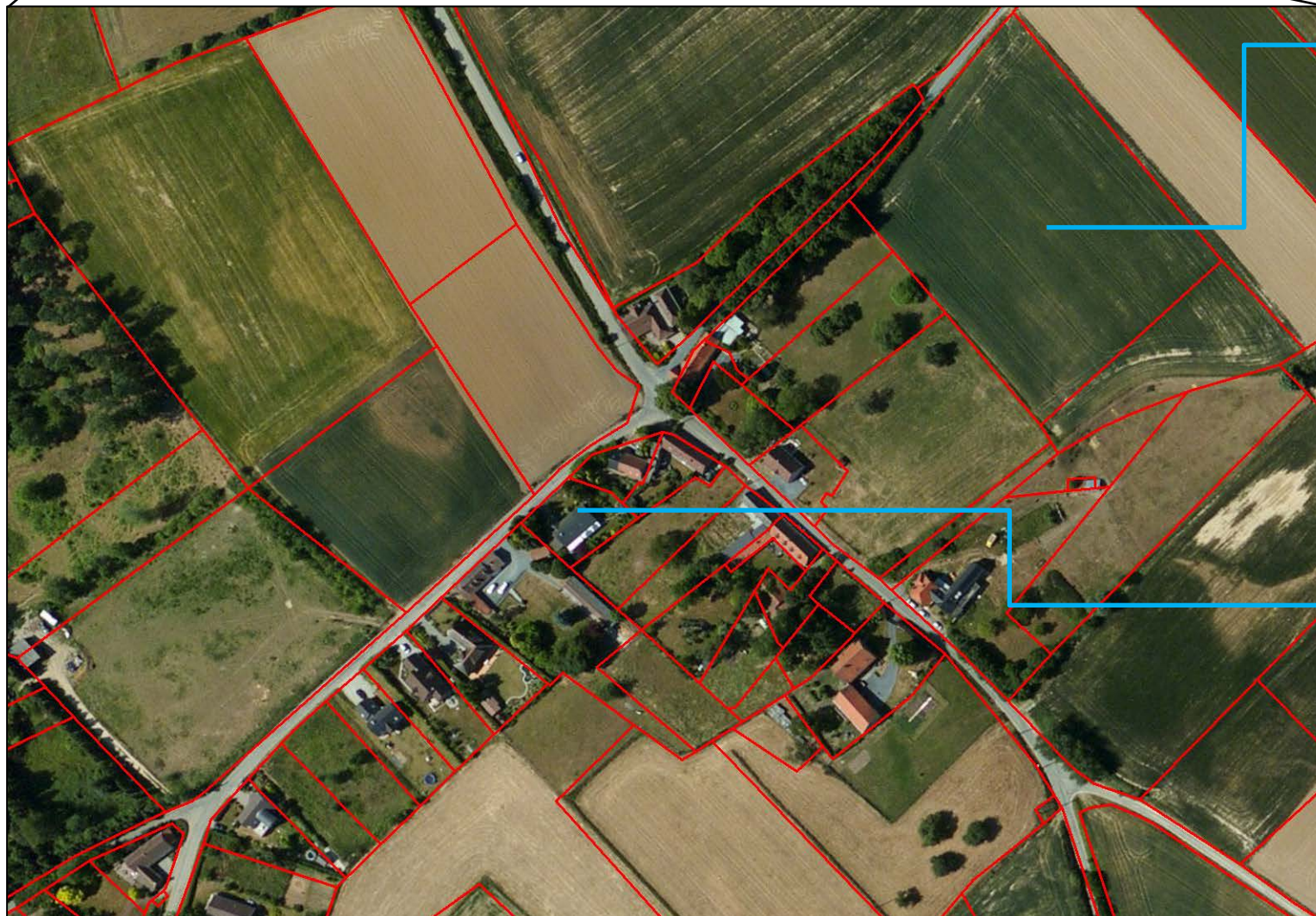
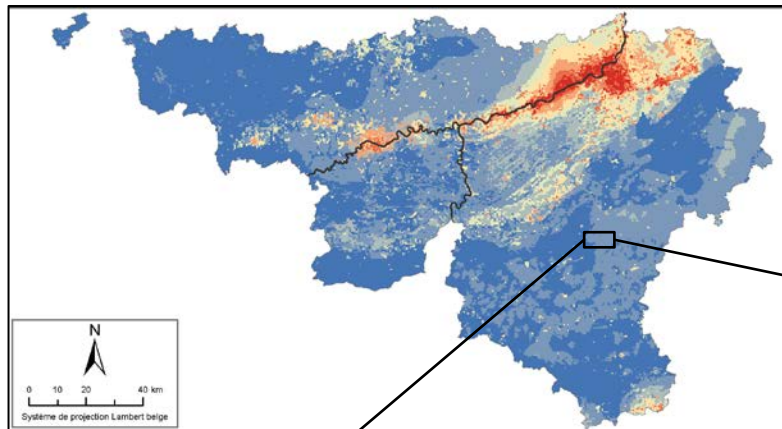
Carte de concentration de fond



?



Objectif



Polluant	Cc de fond
As	10
Cd	0.2
Cu	12
Ni	40
Pb	17
Zn	81

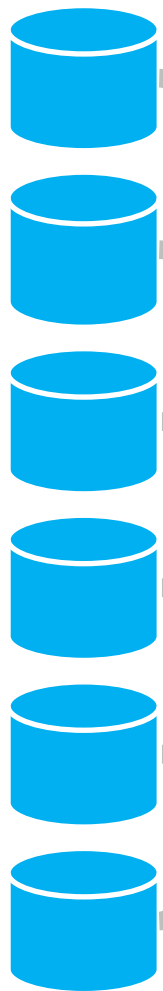
Polluant	Cc de fond
As	15
Cd	1.2
Cu	50
Ni	42
Pb	30
Zn	190



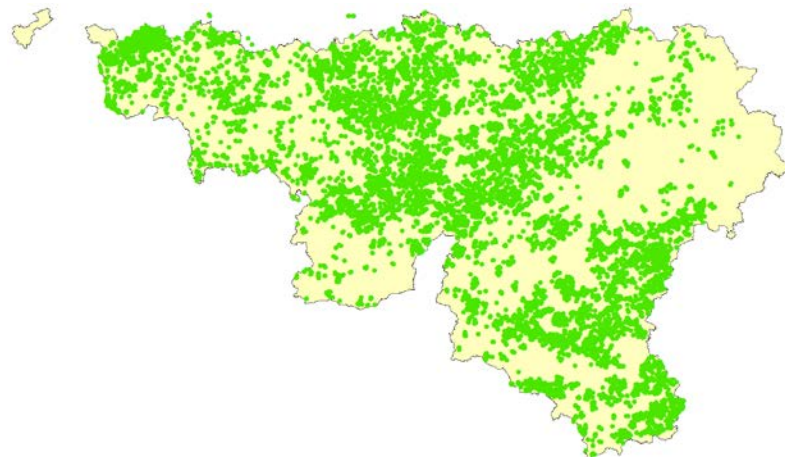
Objectif

SOLUTION 1 : approche non critique

Geochemical
datasets



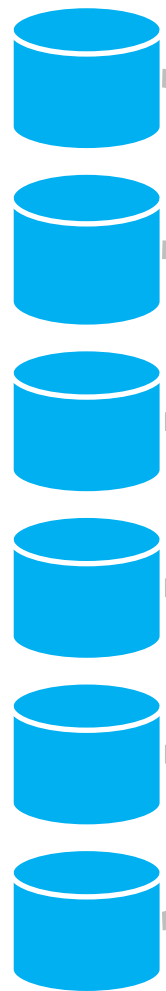
Dataset pour
la carto.
géochimique



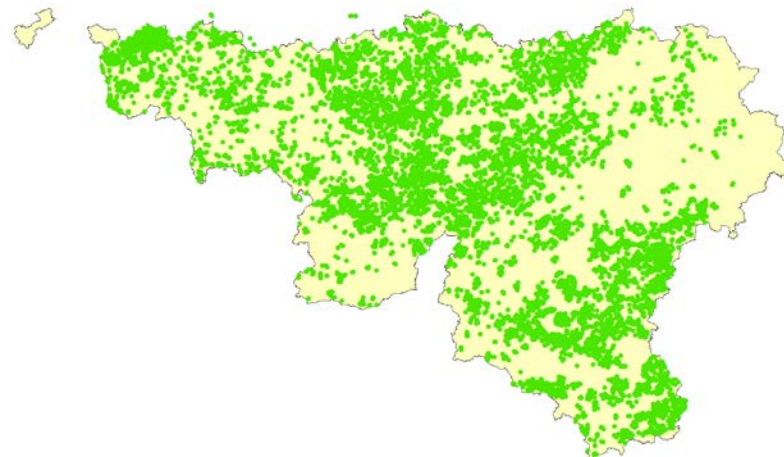
Objectif

SOLUTION 1 : approche non critique

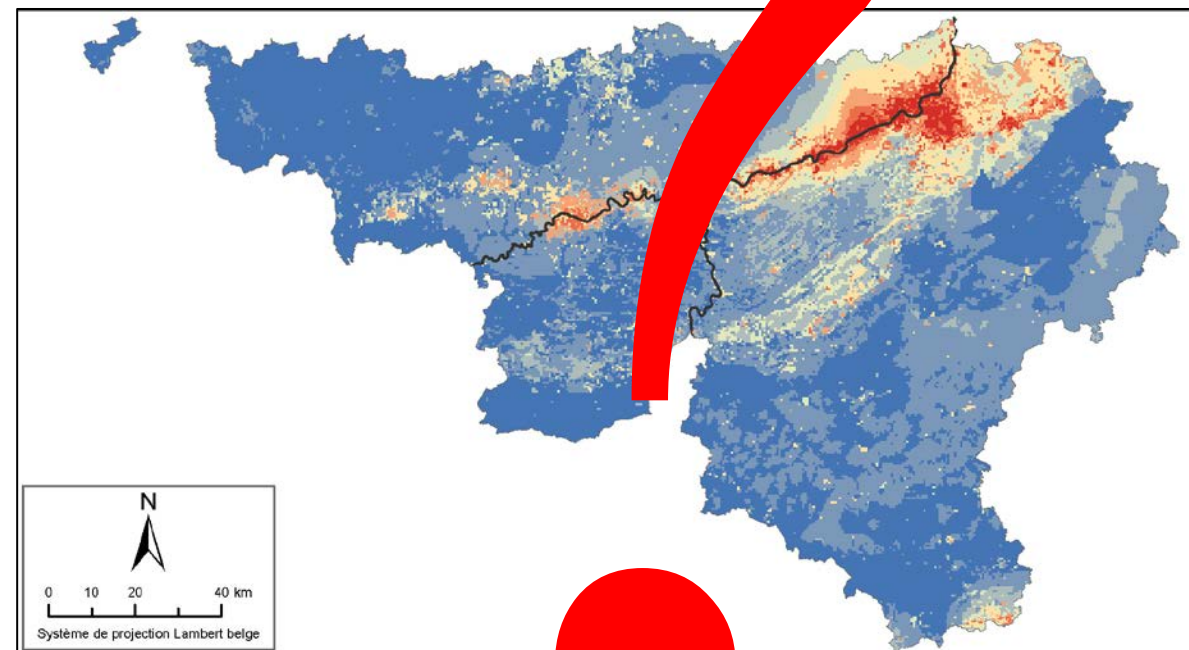
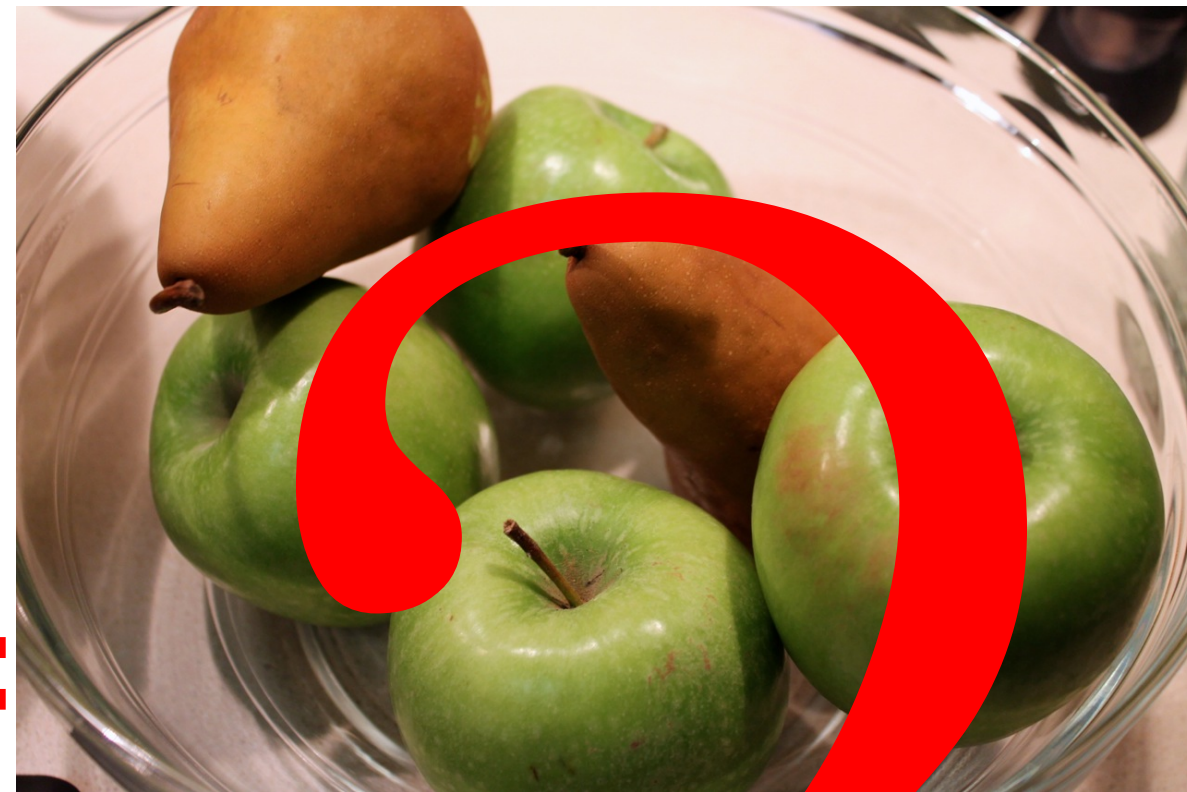
Geochemical
datasets



Dataset pour
la carto.
géochimique



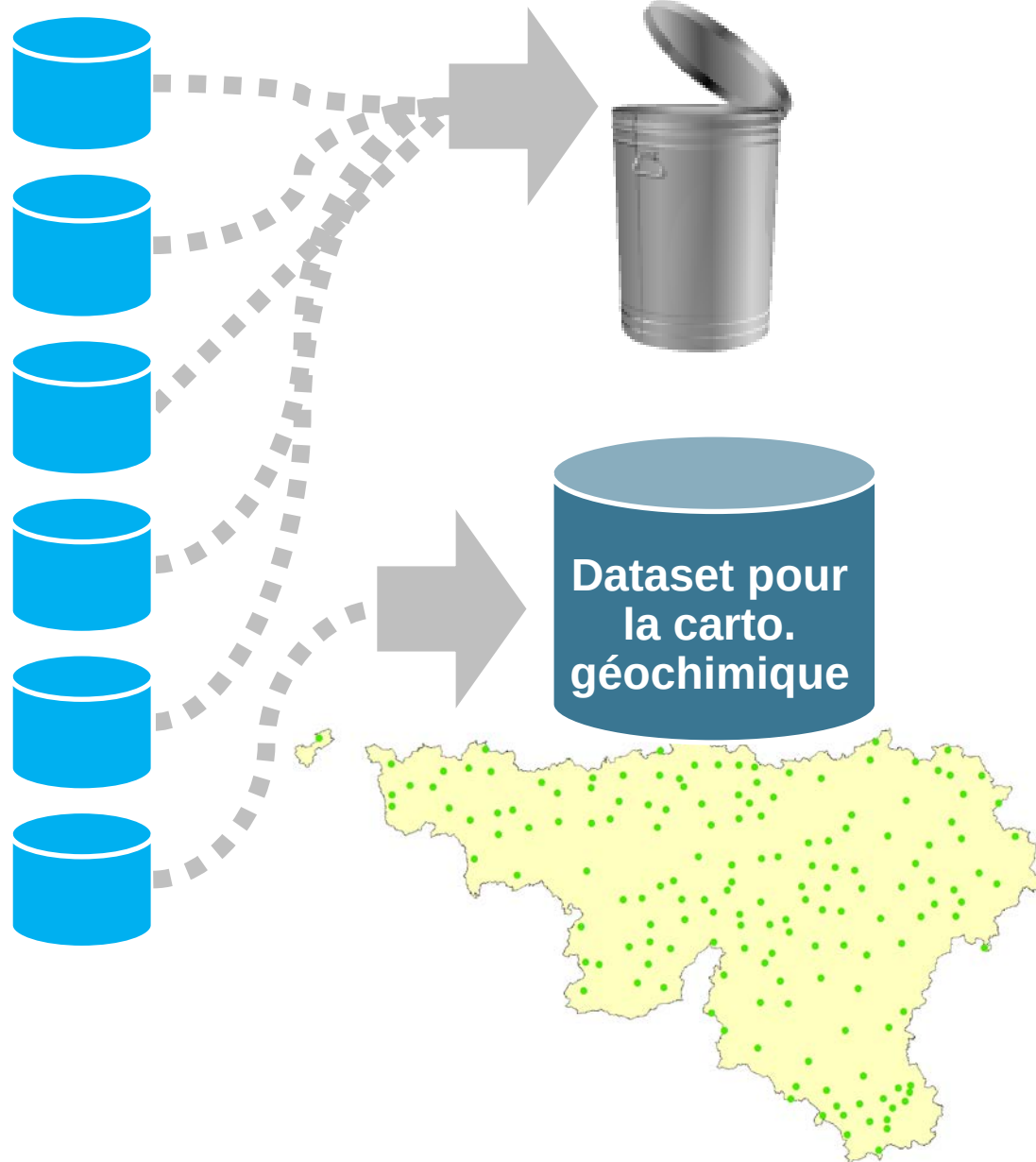
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Objectif

SOLUTION 2 : Principe de précaution

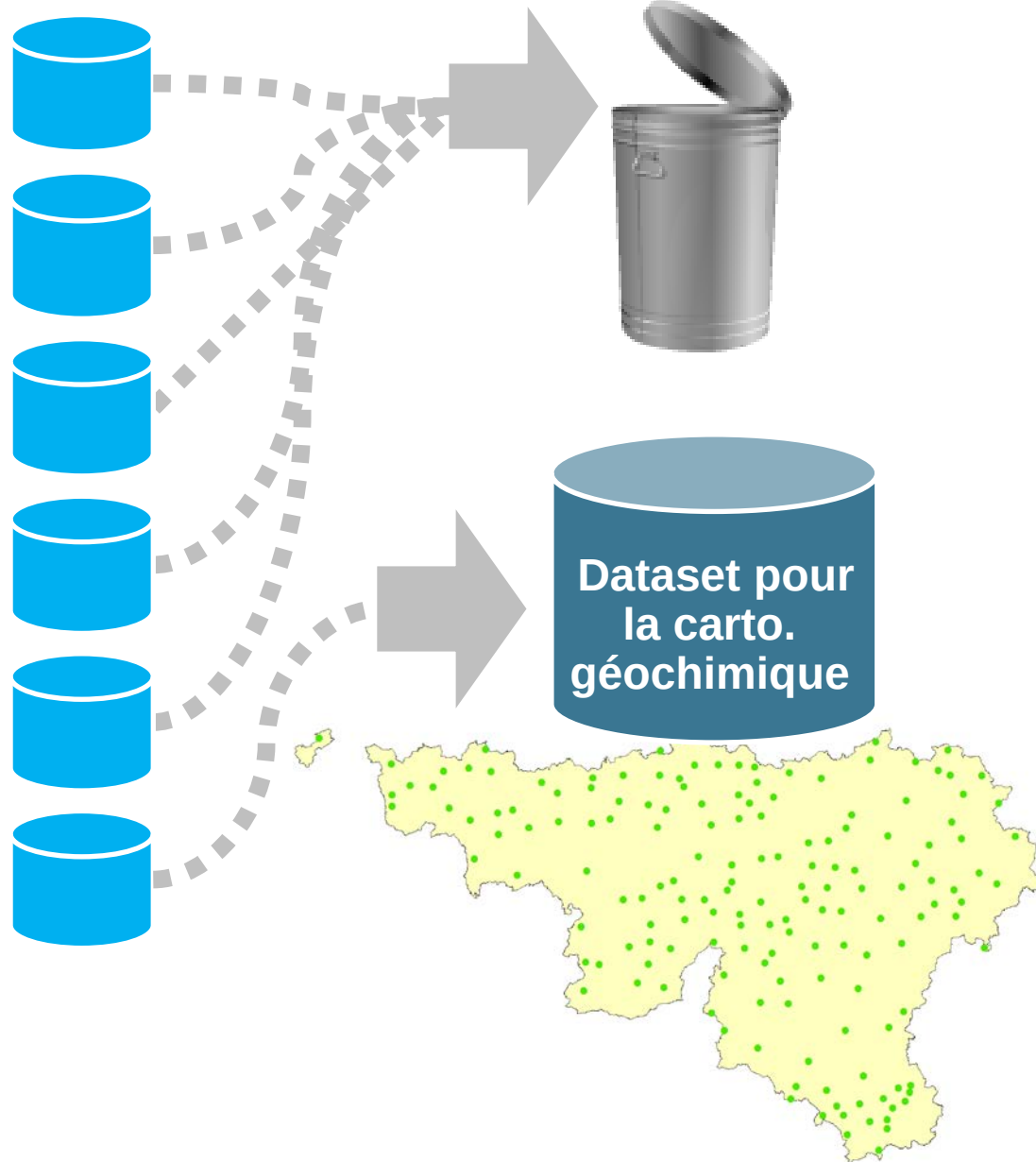
Geochemical
datasets



Objectif

SOLUTION 2 : Principe de précaution

Geochemical
datasets



=



Objectif

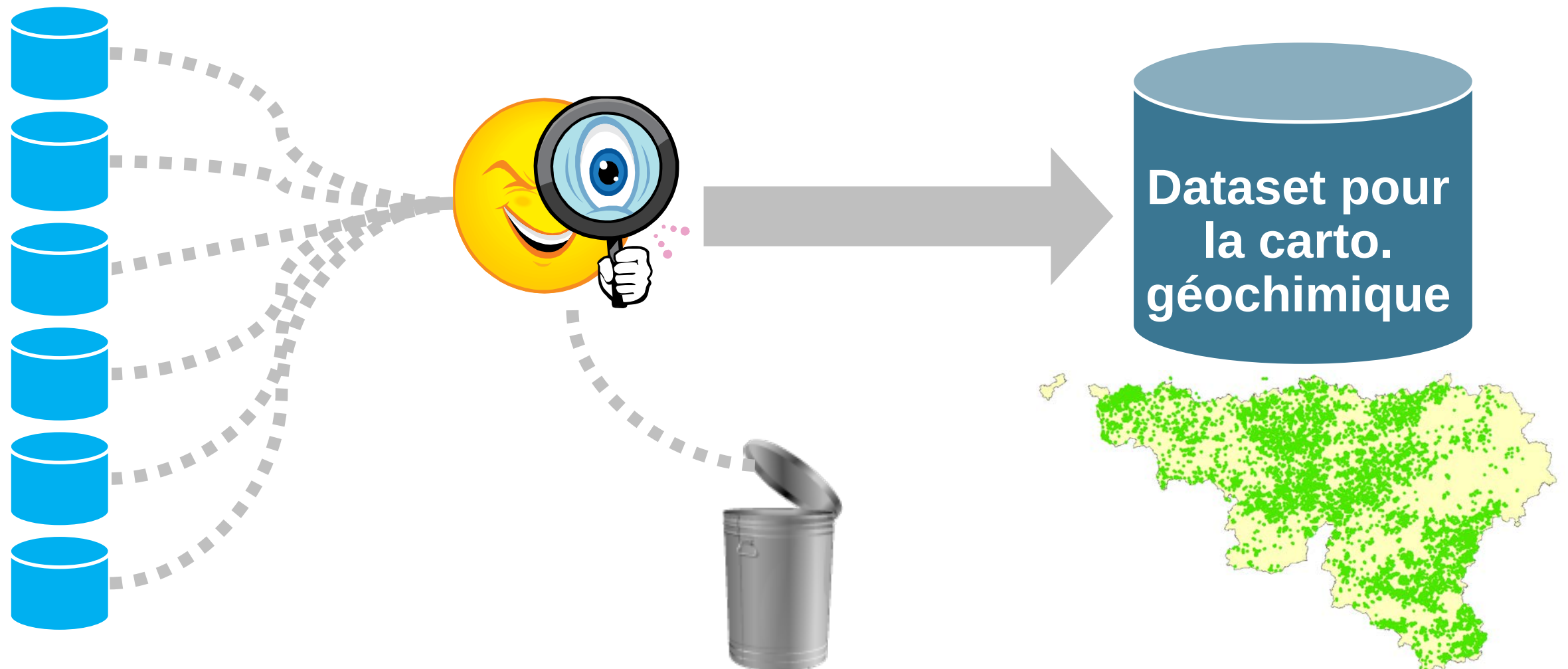
SOLUTION 1 : approche non critique



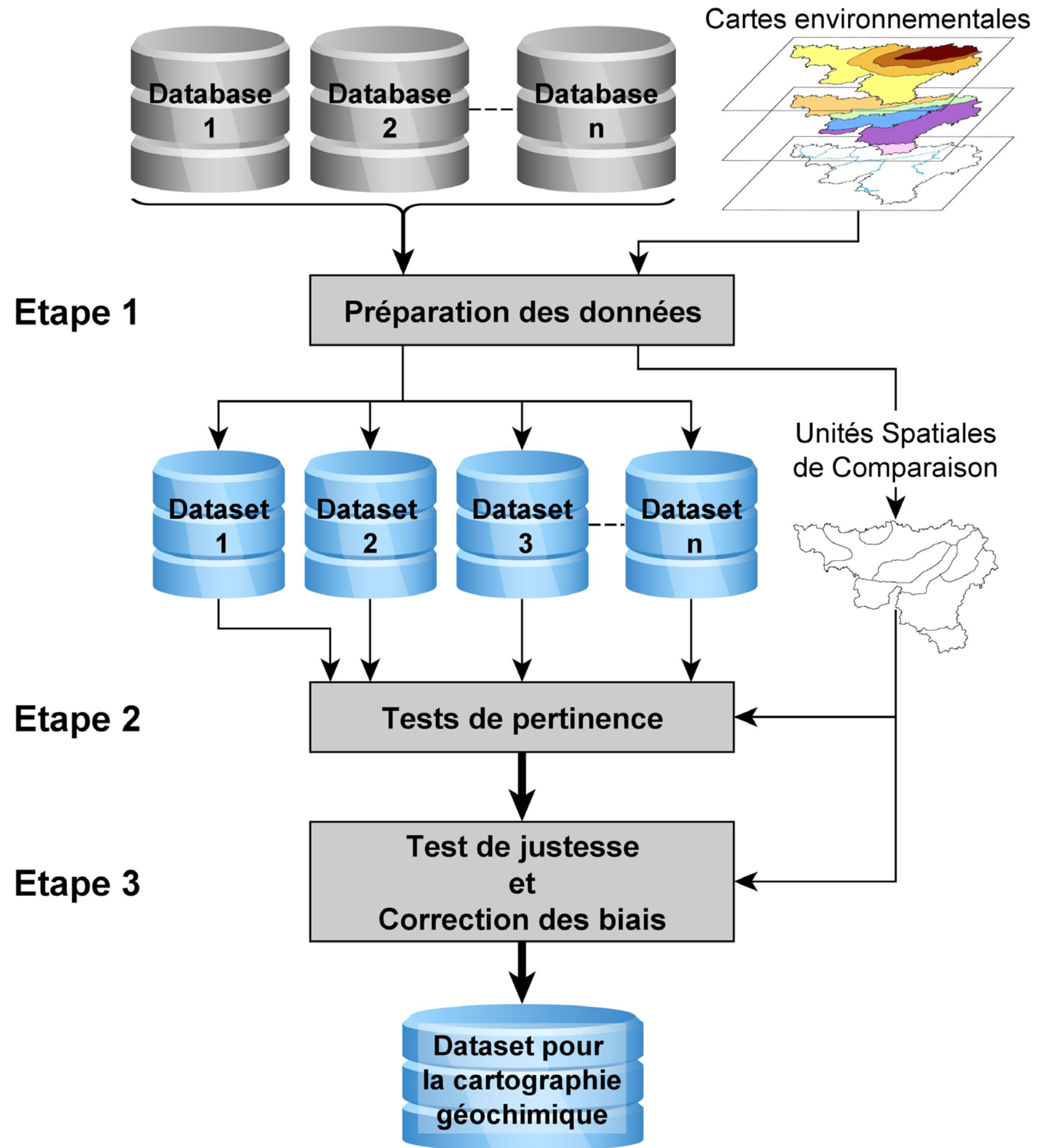
SOLUTION 2 : Principe de précaution



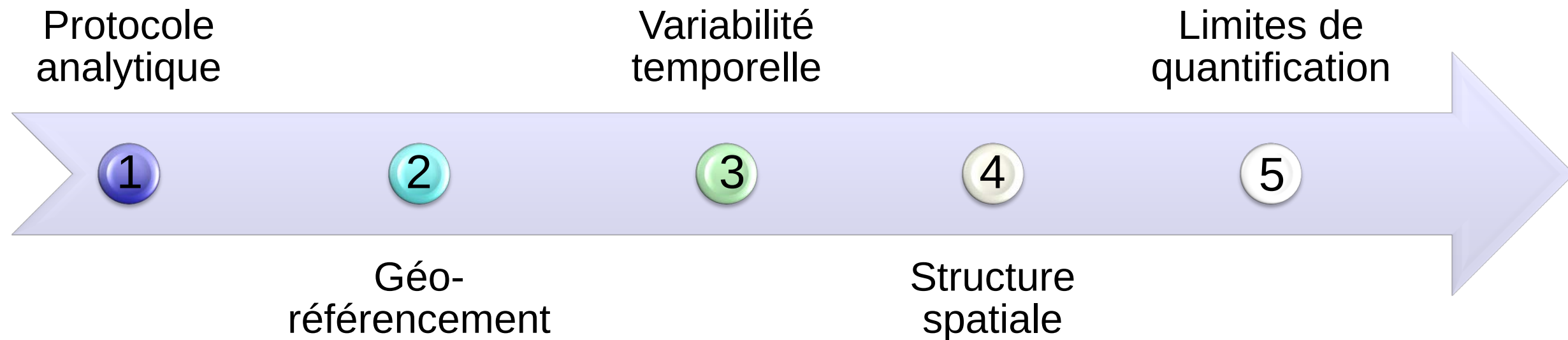
SOLUTION 3 : L'approche pragmatique



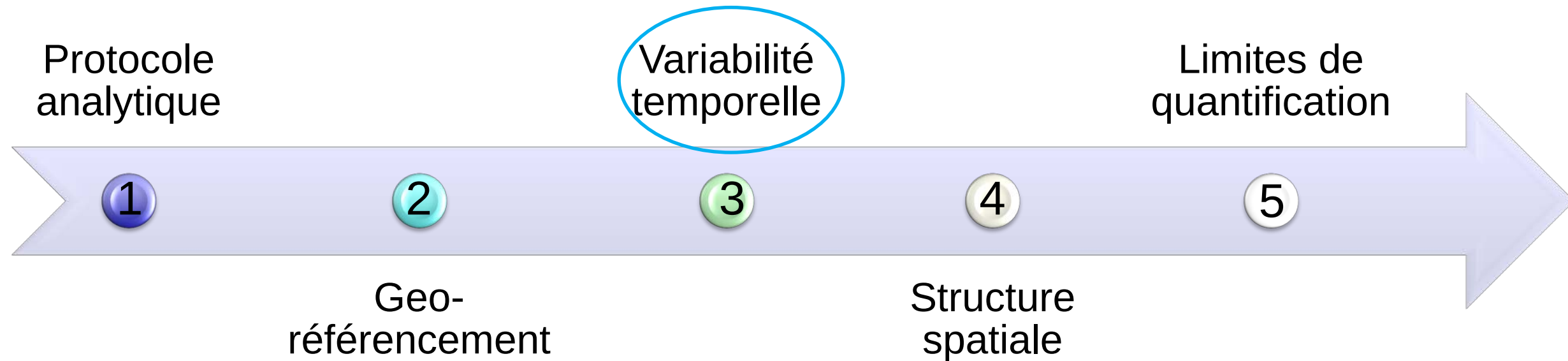
Principe de la méthode



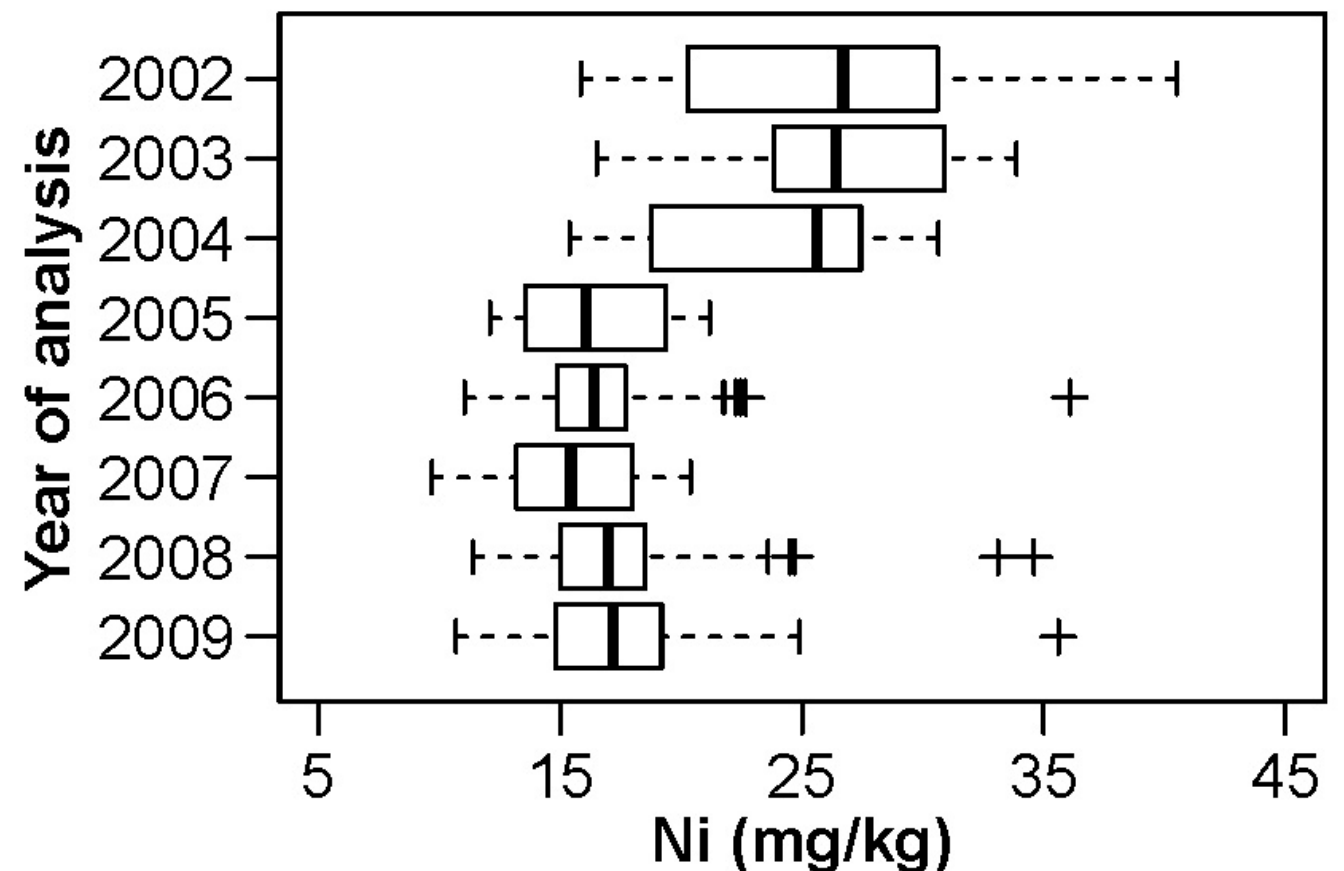
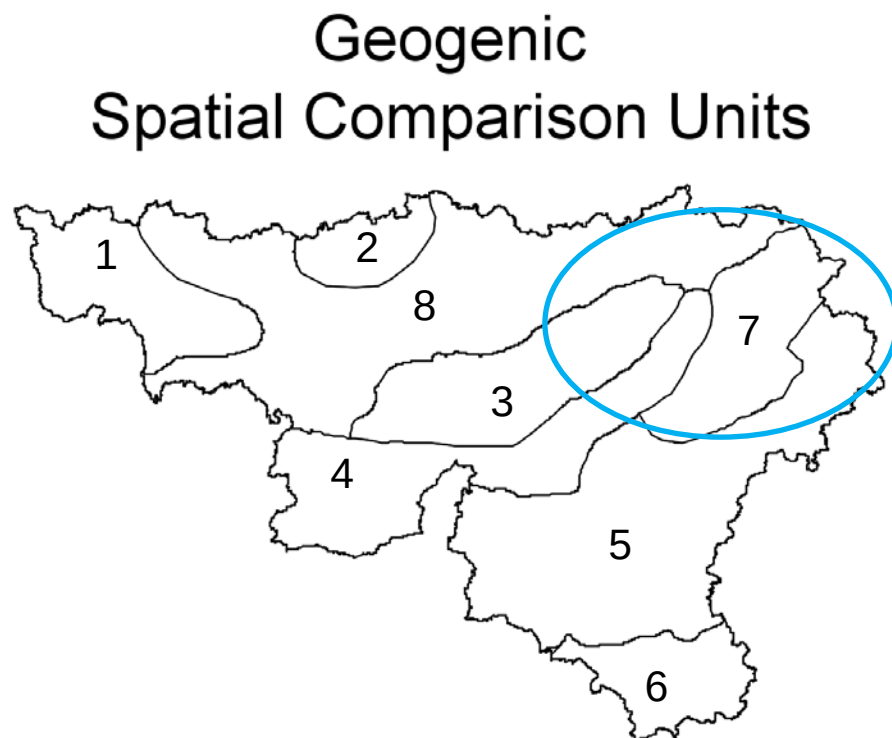
Etape 2 : Tests de pertinence



Etape 2 : Tests de pertinence

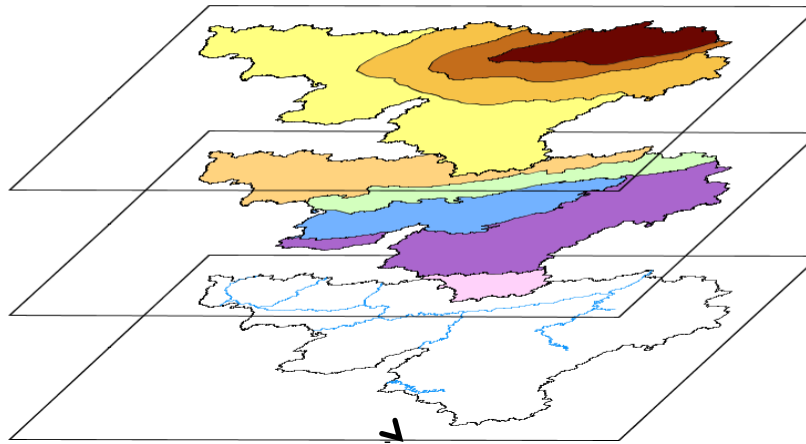


Unité Spatiale de Comparaison 7



Etape 1 : Préparation des données

Cartes environnementales



- Géologie
- Pédologie
- Retombées de polluants
- ...

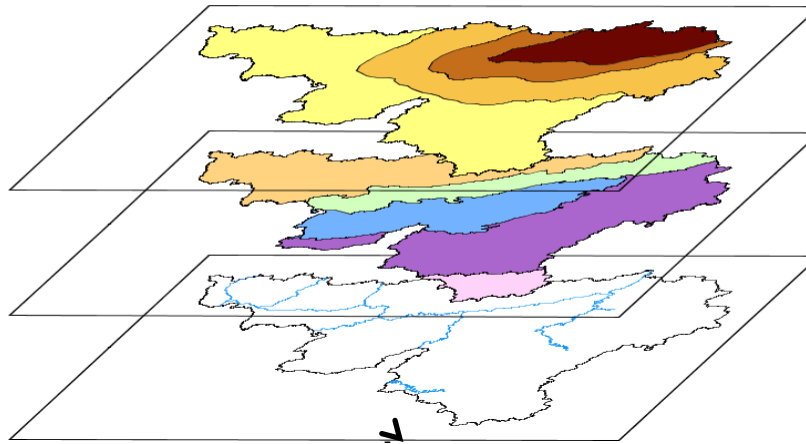


Geogenic Spatial Comparison Units



Etape 1 : Préparation des données

Cartes environnementales



- Géologie
- Pédologie
- Retombées de polluants
- ...



Geogenic Spatial Comparison Units

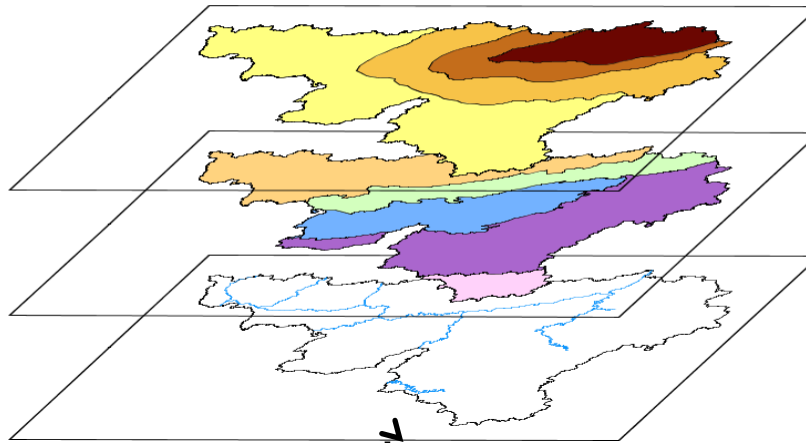


Anthropogenic Spatial Comparison Units



Etape 1 : Préparation des données

Cartes environnementales



- Géologie
- Pédologie
- Retombées de polluants
- ...



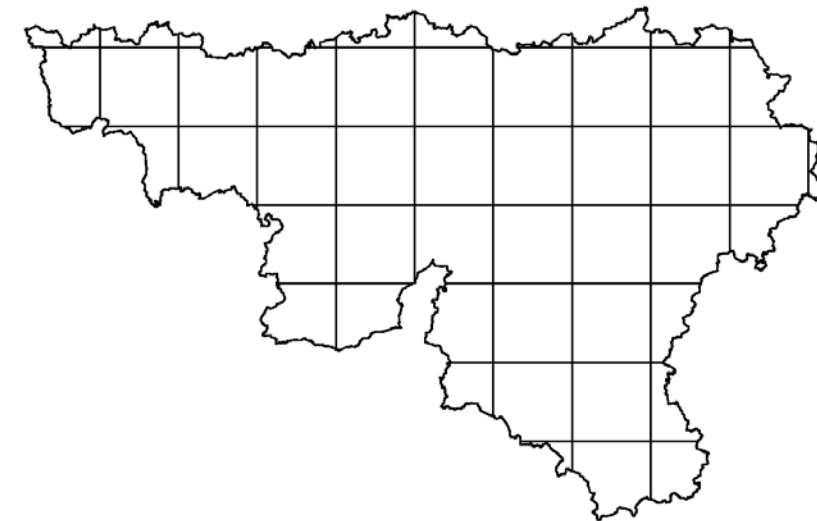
Geogenic
Spatial Comparison Units



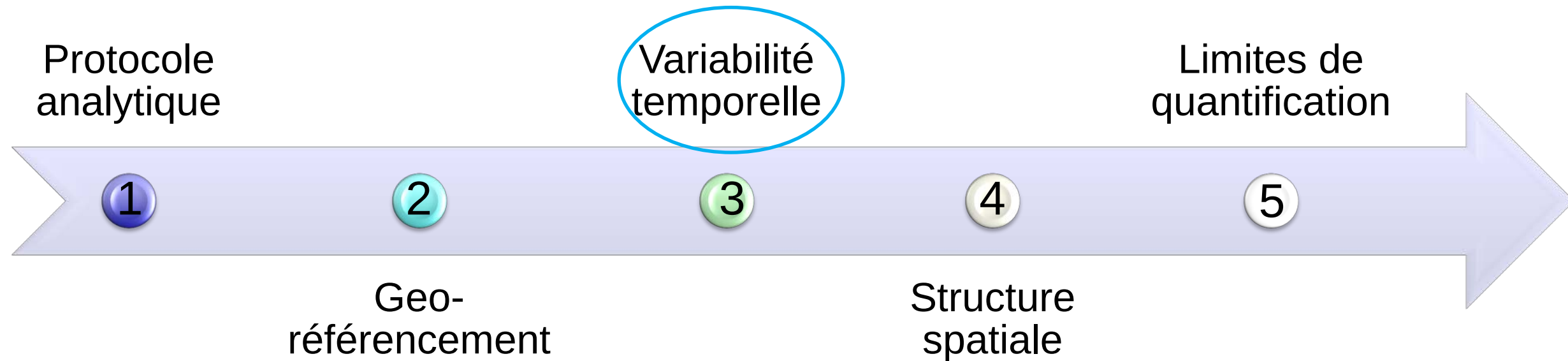
Anthropogenic
Spatial Comparison Units



Fishnet
Spatial Comparison Units

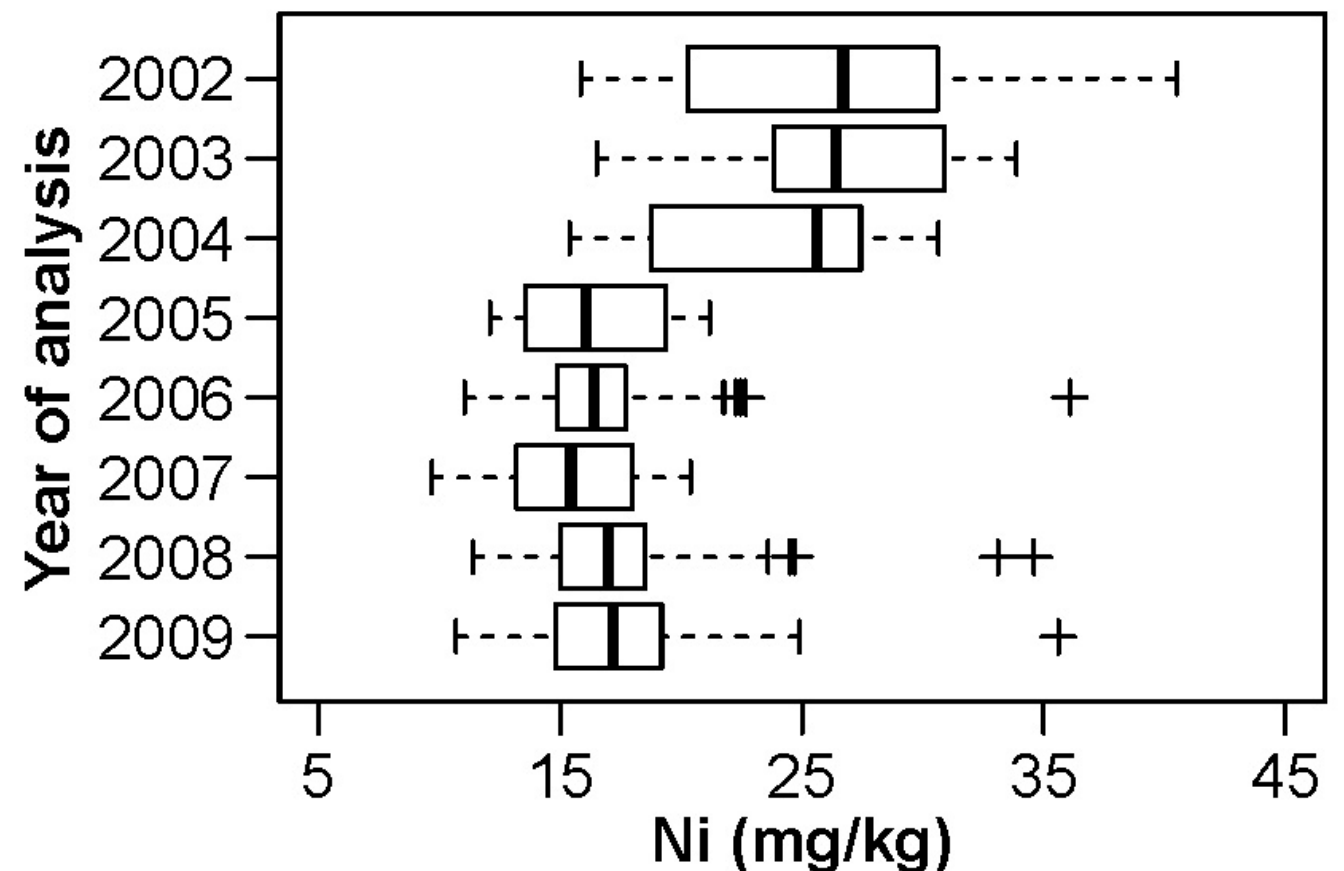
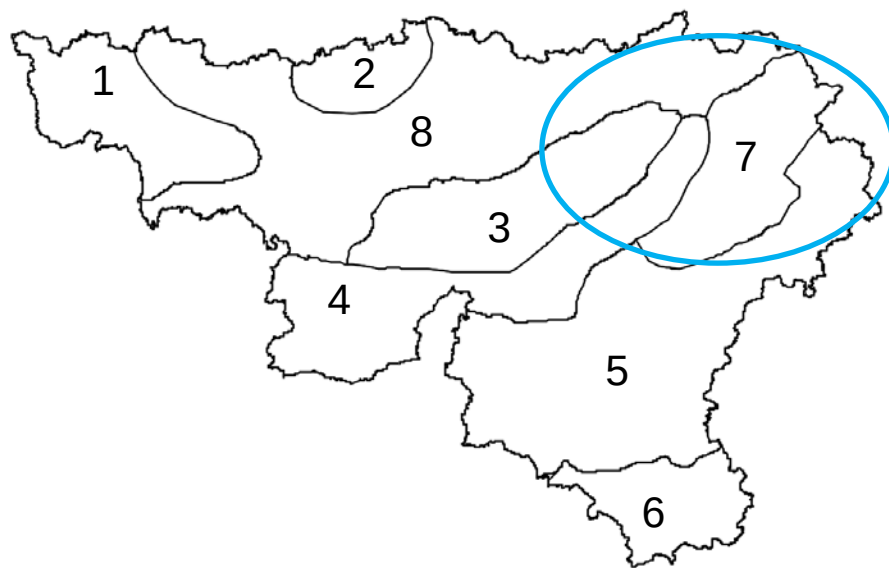


Etape 2 : Tests de pertinence

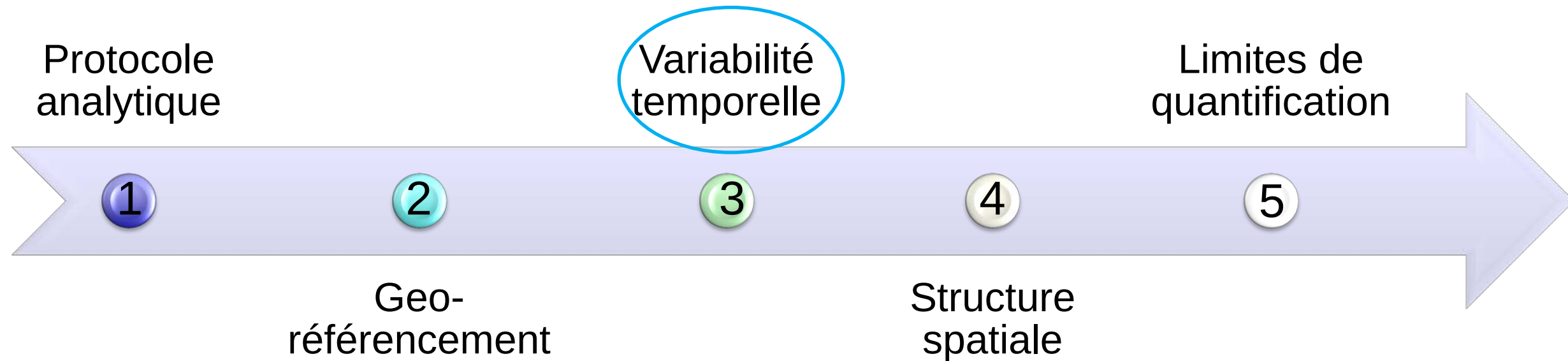


Unité Spatiale de Comparaison 7

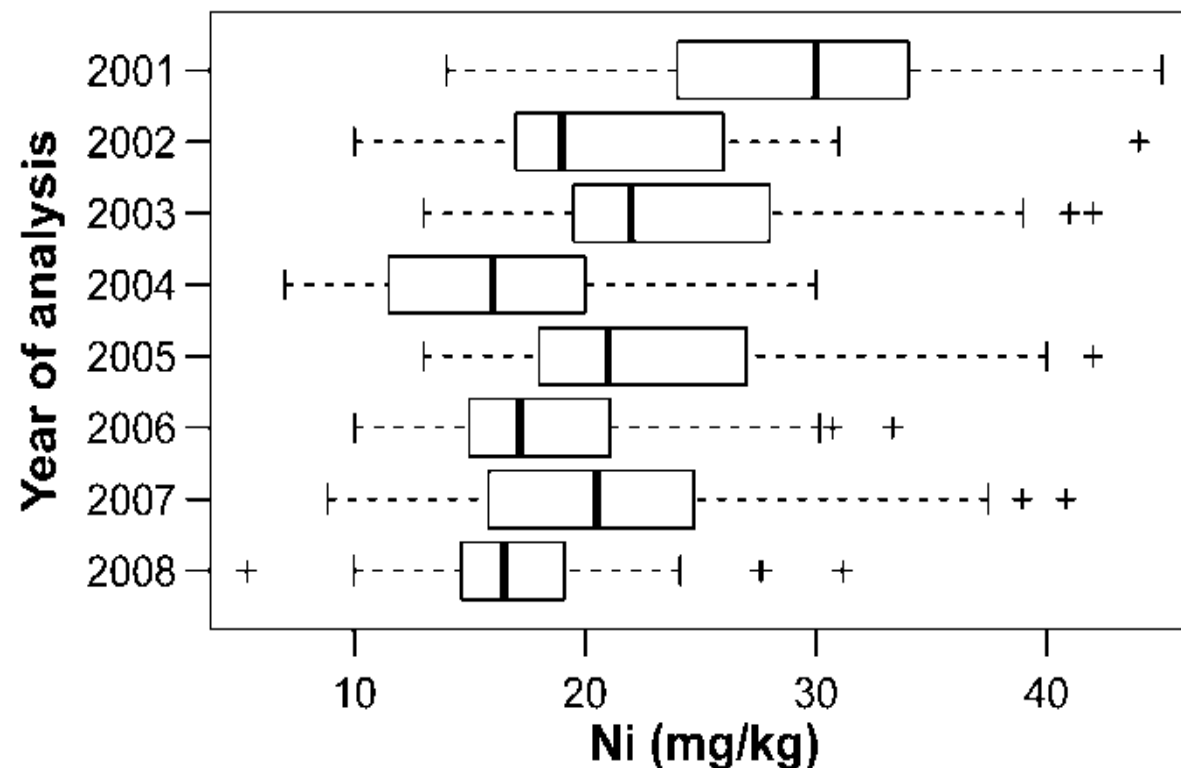
Geogenic
Spatial Comparison Units



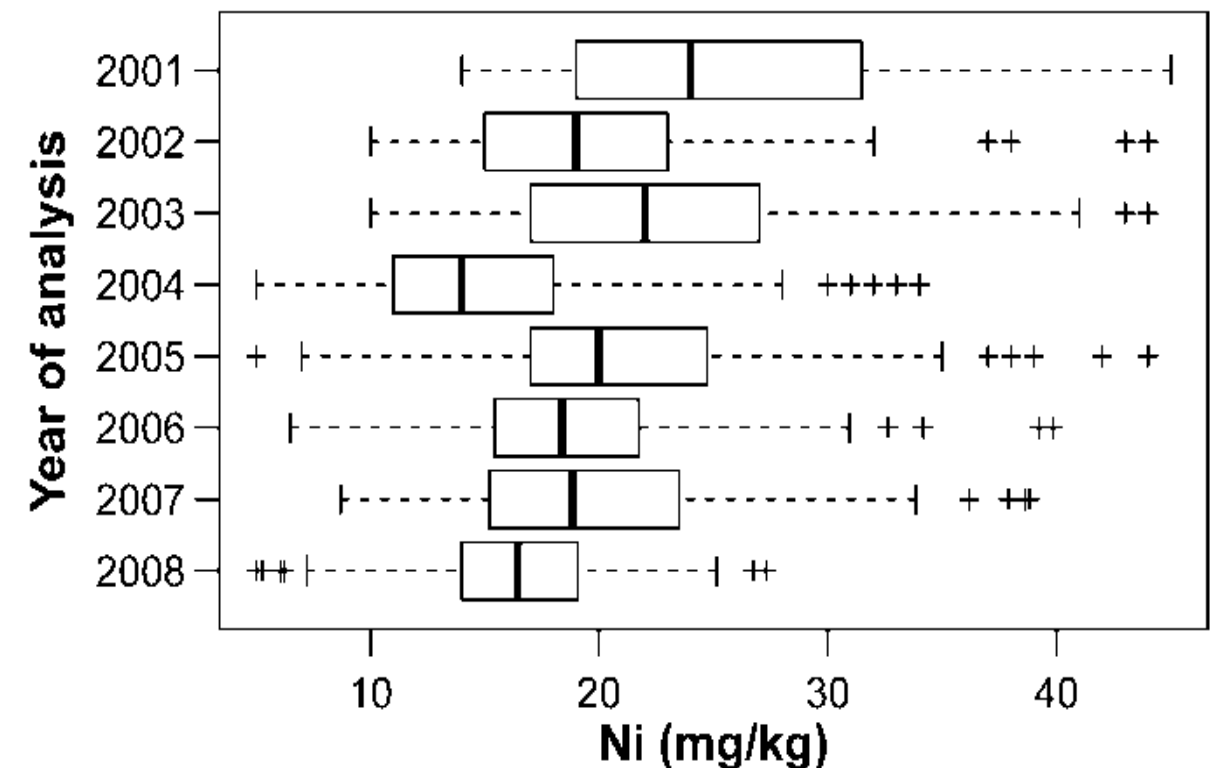
Etape 2 : Tests de pertinence



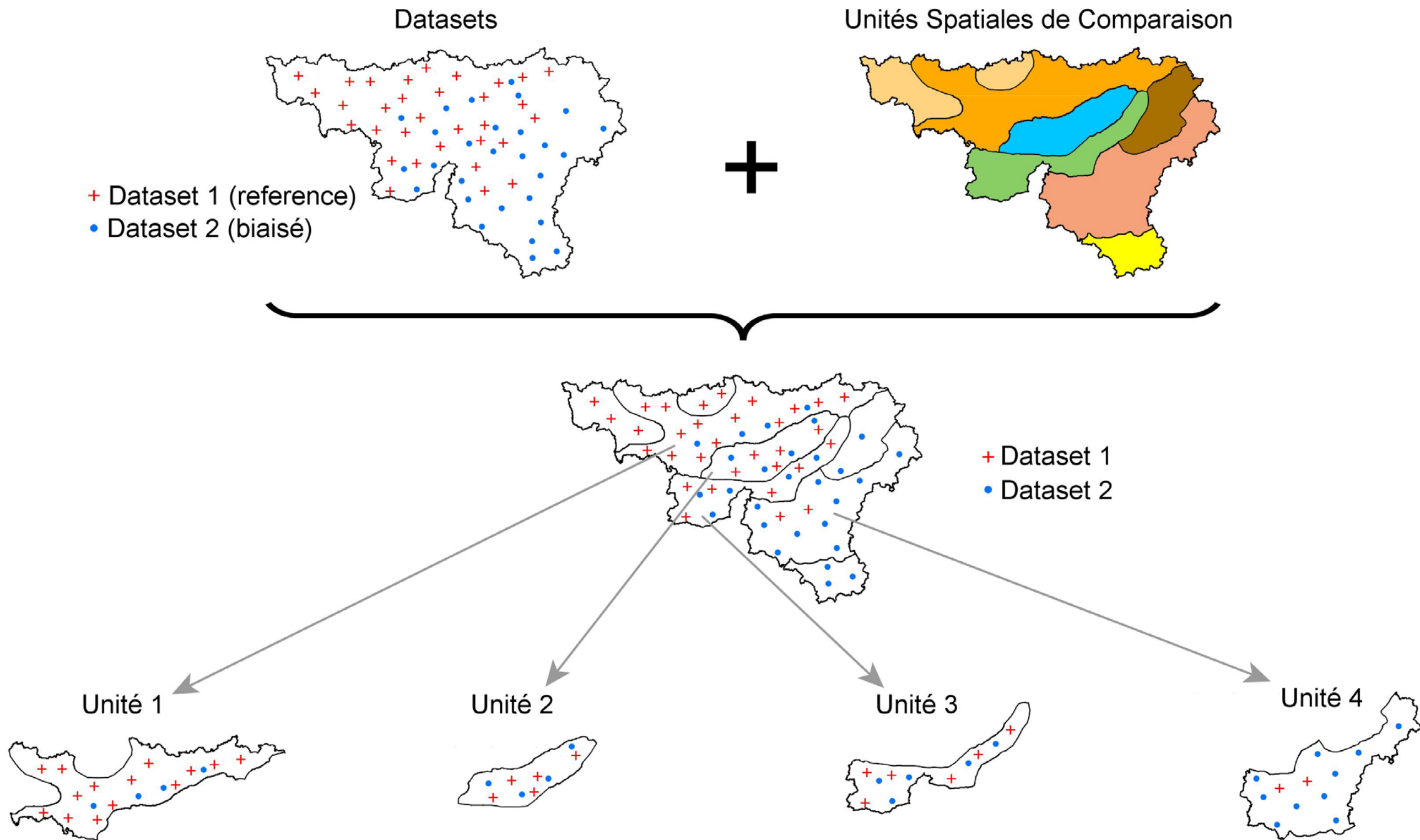
Unité Spatiale de Comparaison 1



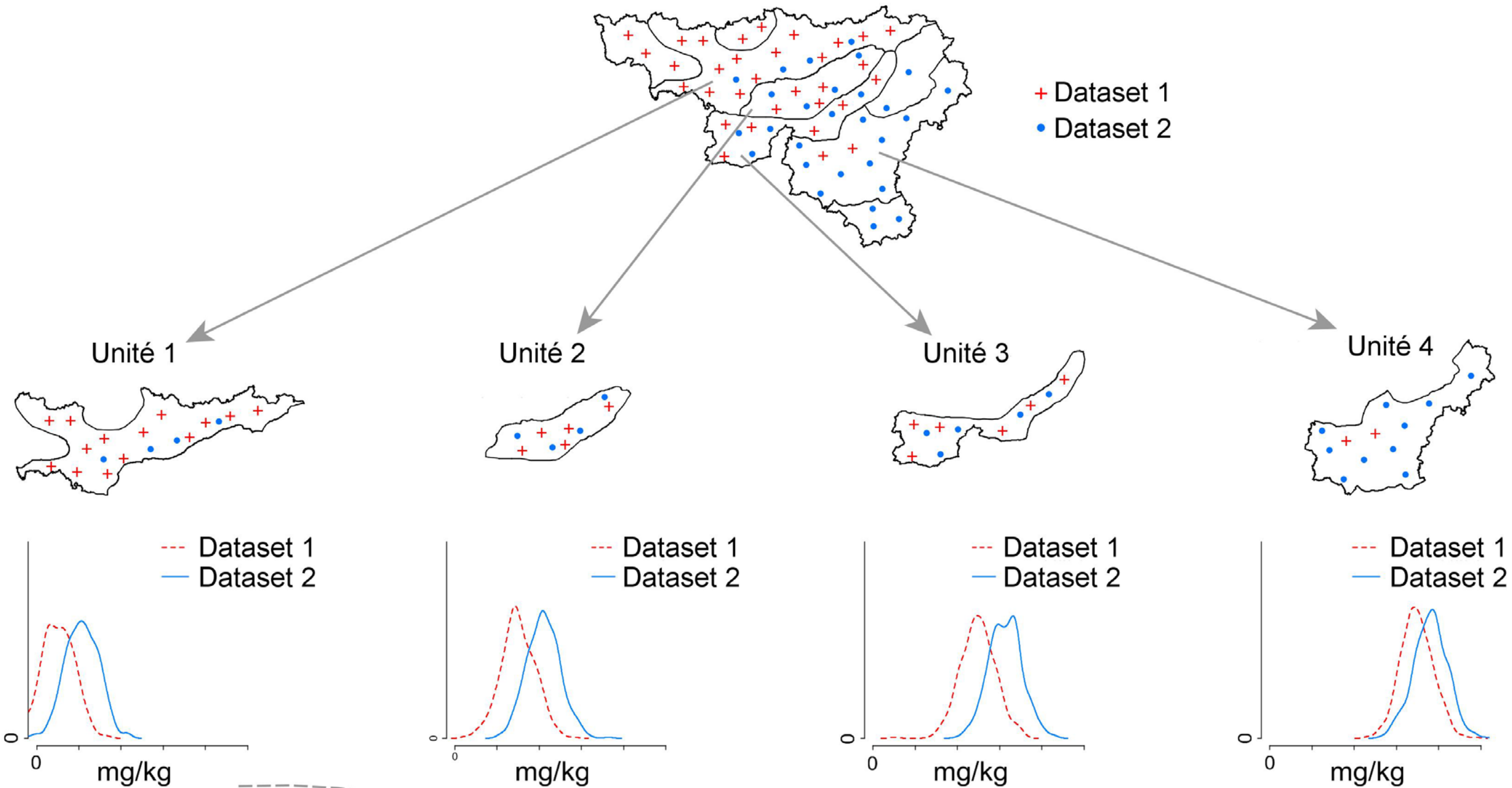
Unité Spatiale de Comparaison 3



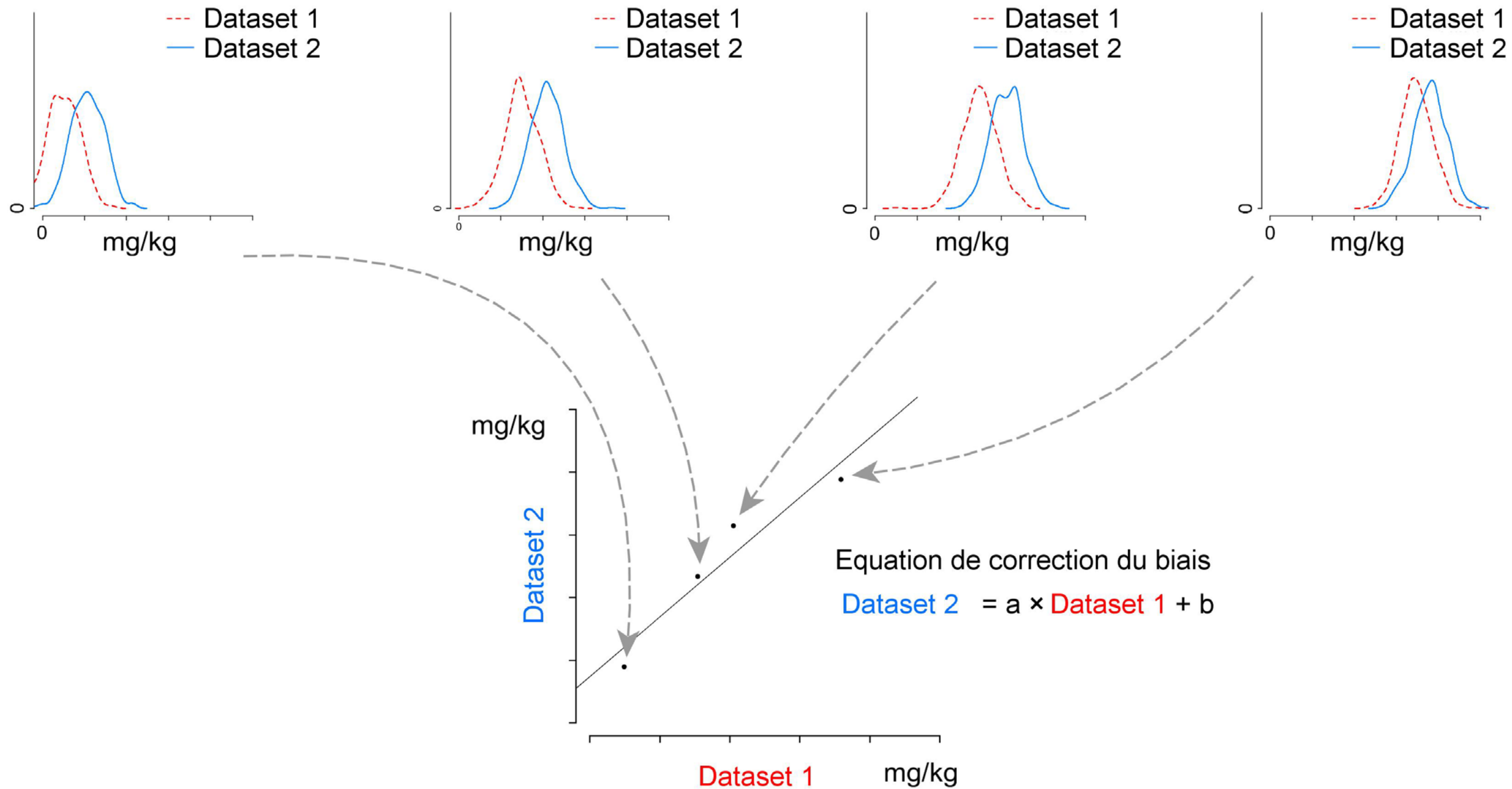
Etape 3 : Test de justesse



Etape 3 : Test de justesse

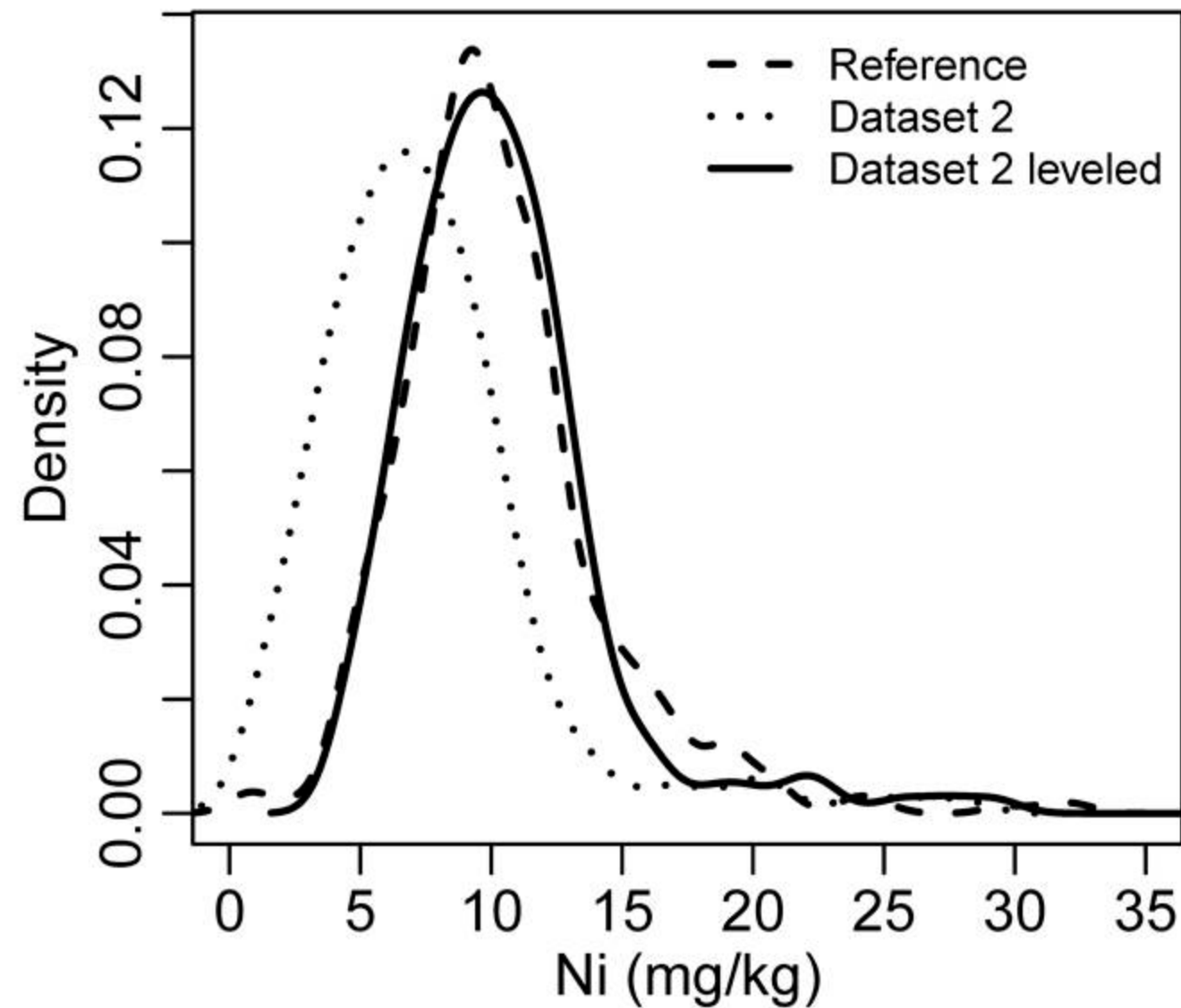
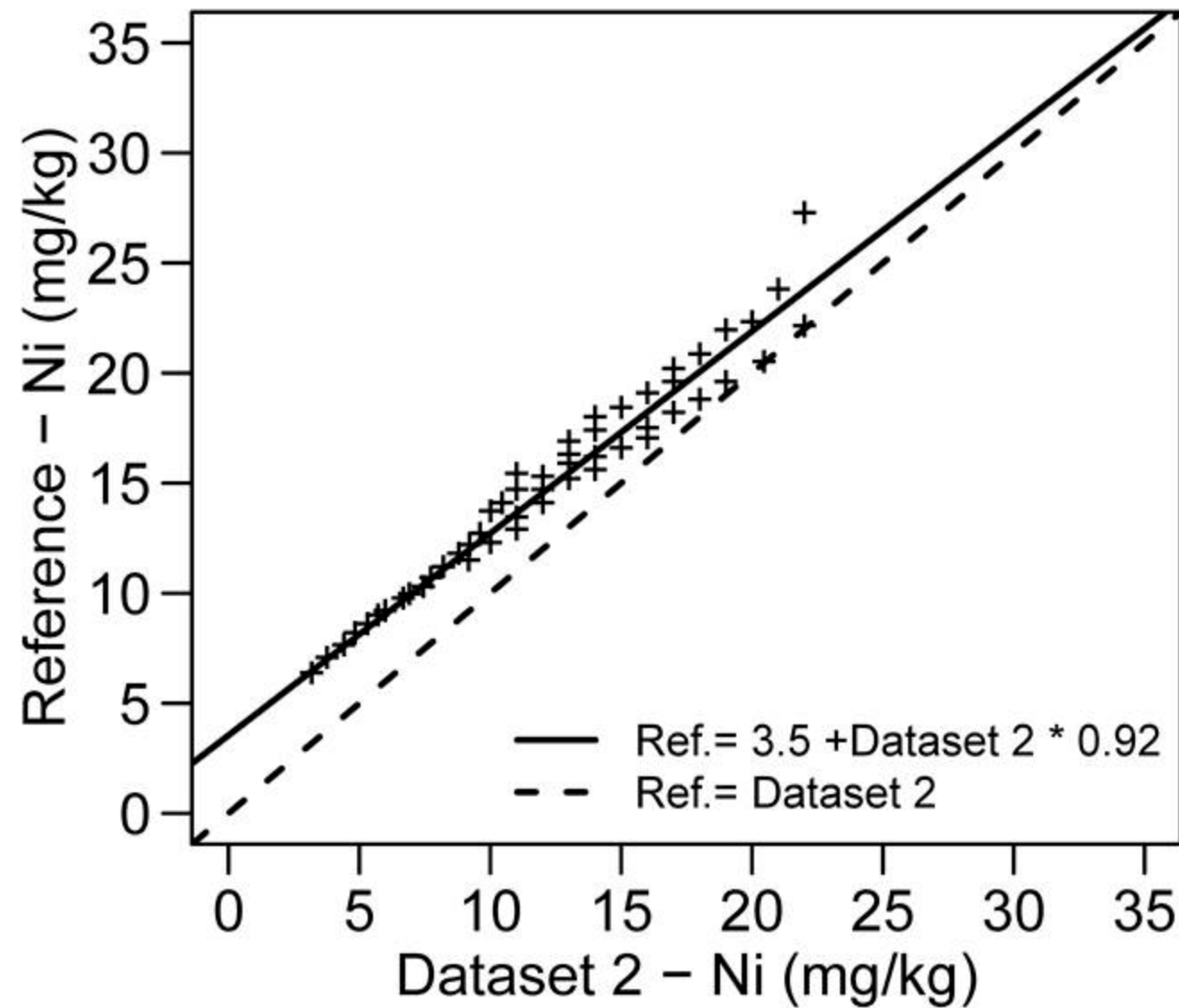


Etape 3 : Correction des biais

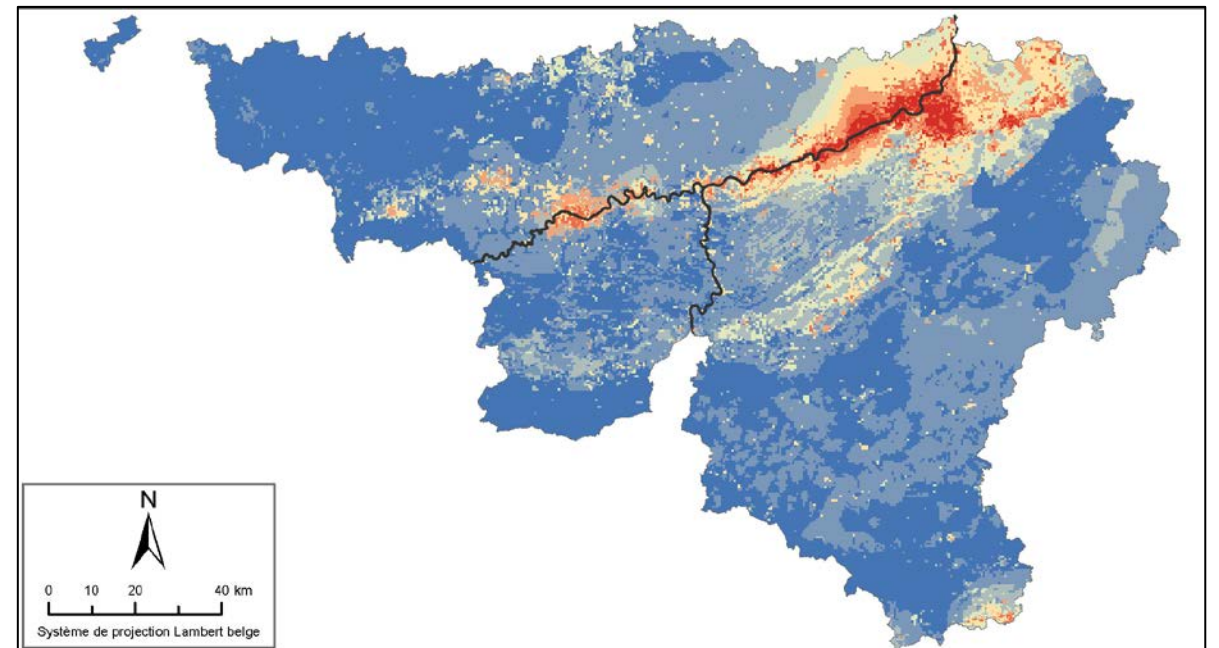


Etape 3 : Correction des biais

Exemple de résultat :



Conclusions and perspectives

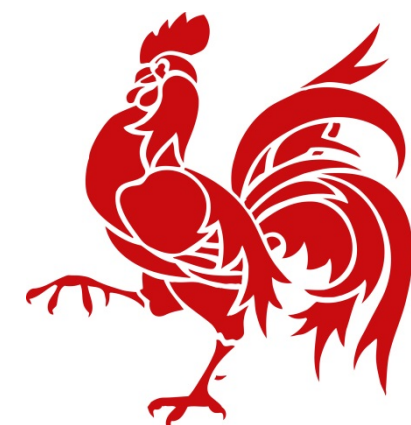


Merci pour votre attention !

Les auteurs tiennent à remercier la Direction de la Protection des Sols du Service Public de Wallonie du soutien financier pour la réalisation de cette étude.



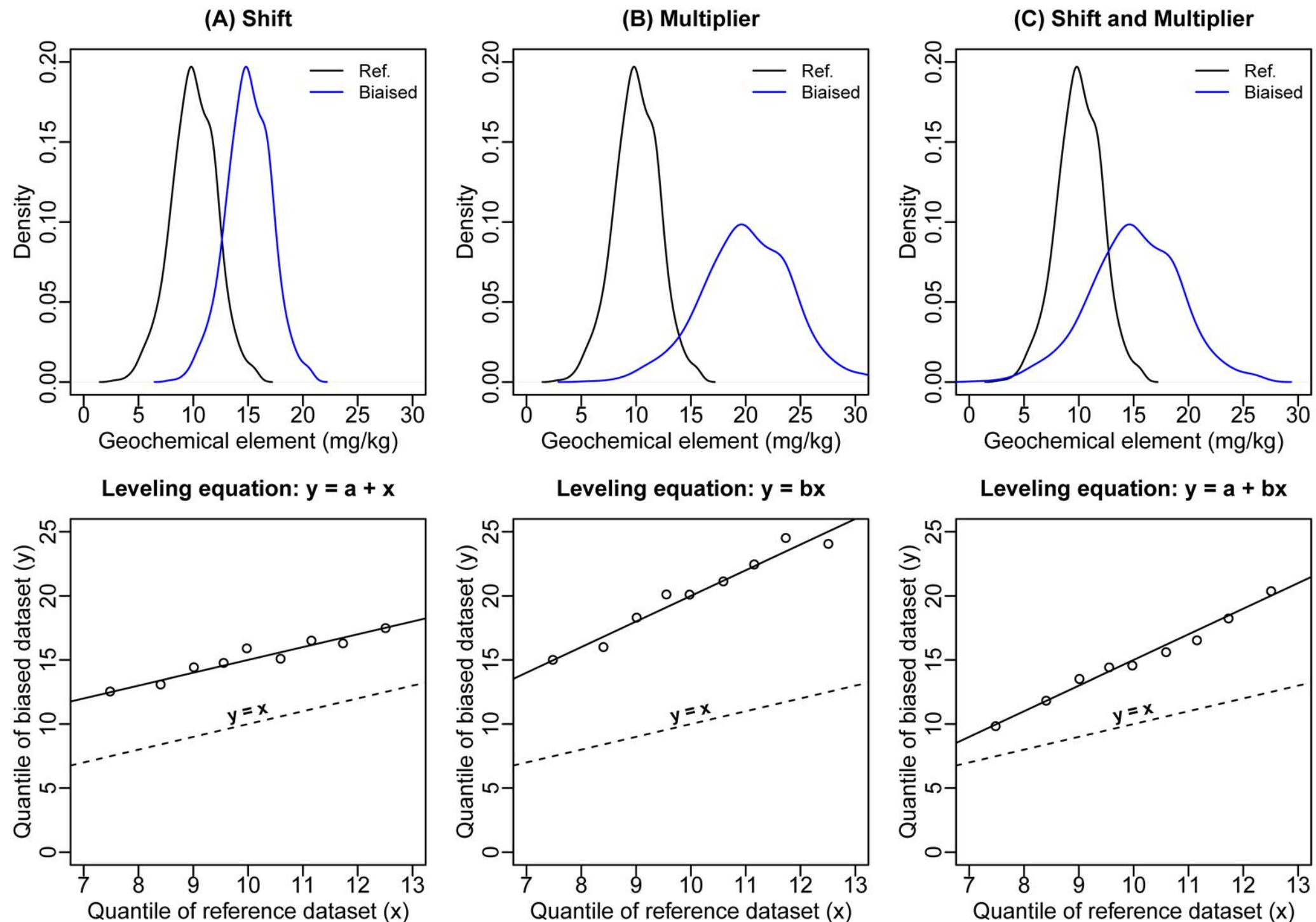
Service public
de **Wallonie**



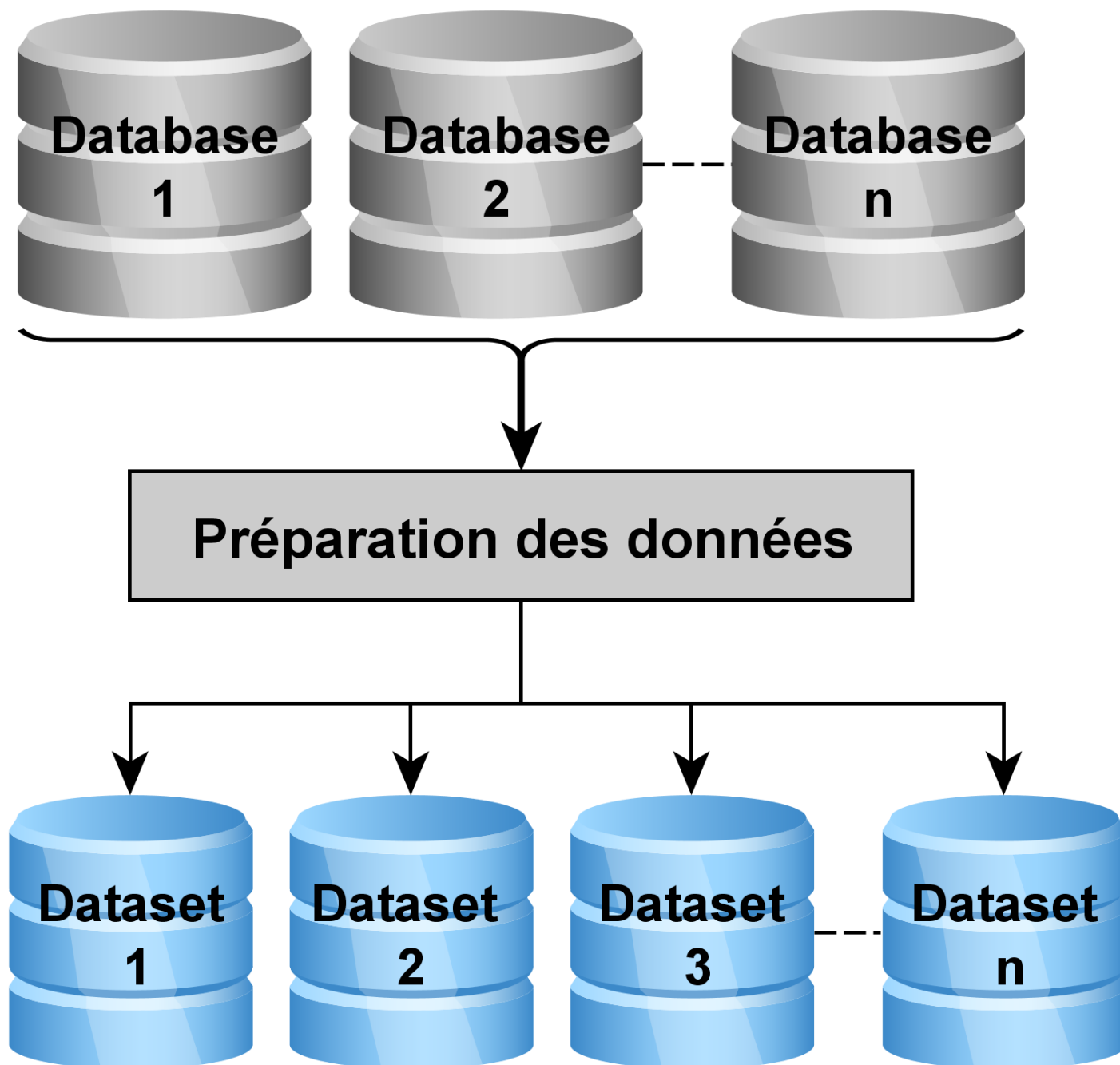
Wallonie

Etape 3 : Correction des biais

2. Correction des biais



Etape 1 : Préparation des données



Dataset :

- Labo unique
- Méthode unique et documentée
- Même type d'échantillon

ID	X	Y	Zn	Pb	...
1	125185	545615	65	28	...
2	129298	548965	59	26	...
...	...	...	...	...	...

+ date d'analyse

