

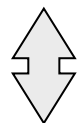
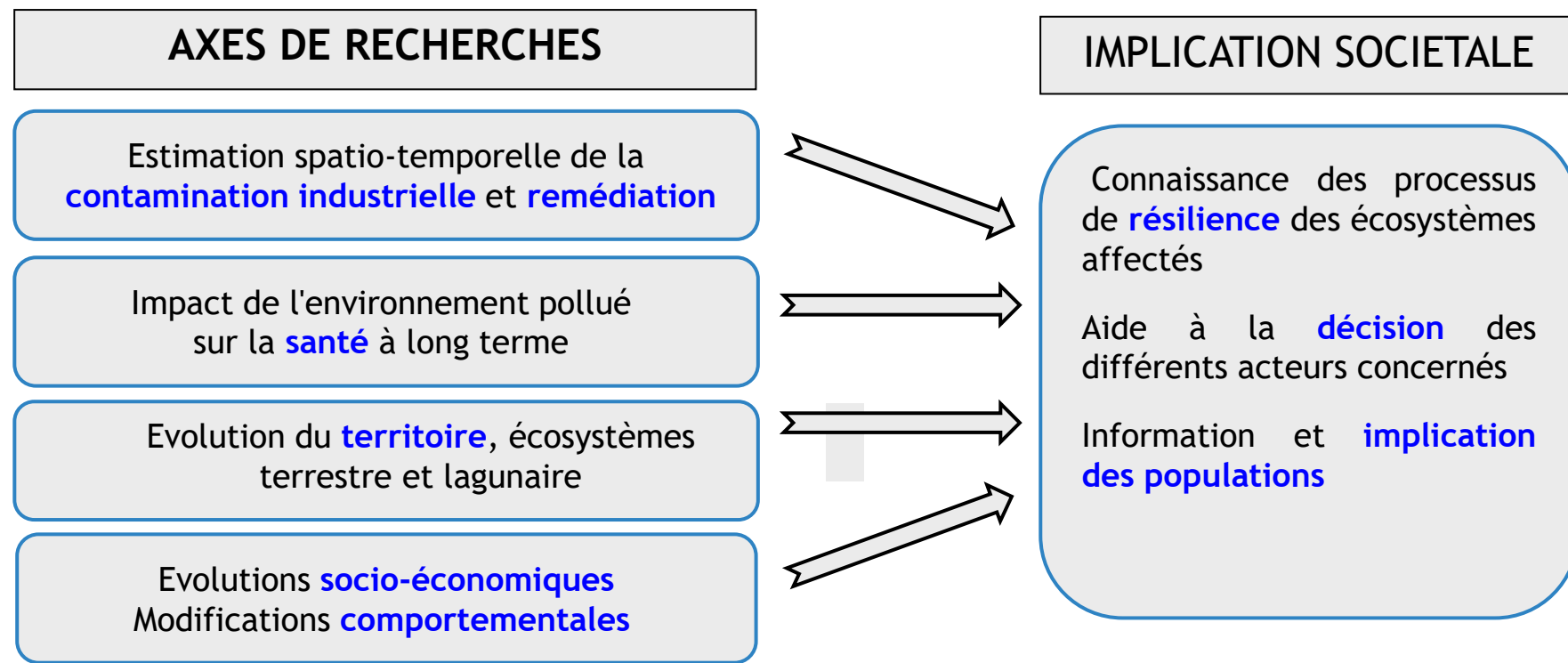


ohm | ESTARREJA

OHM-Estarreja — Actualités 2015/2016



4^{ème} Séminaire annuel du Labex DRIIHM
23, 24 et 25 mai 2016, Toulouse



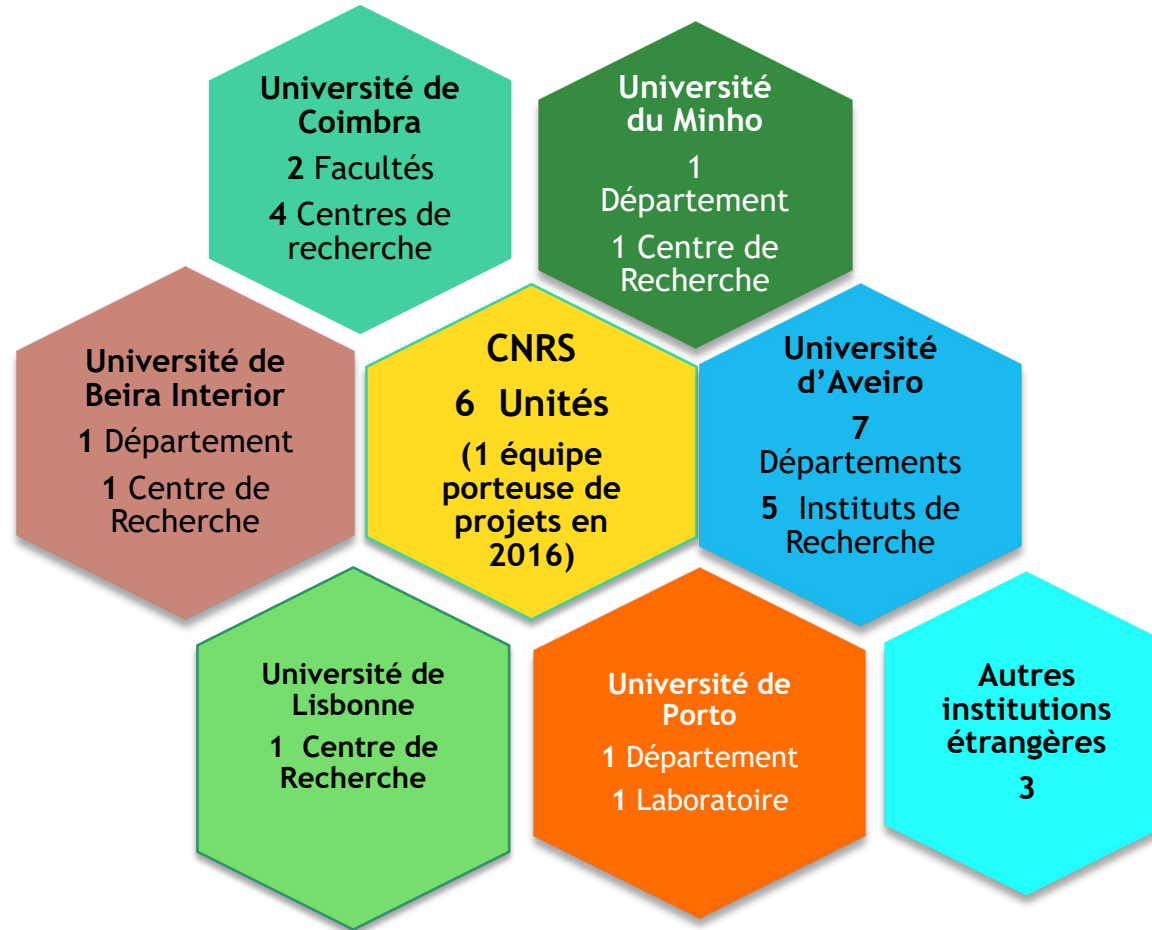
Interdisciplinarité

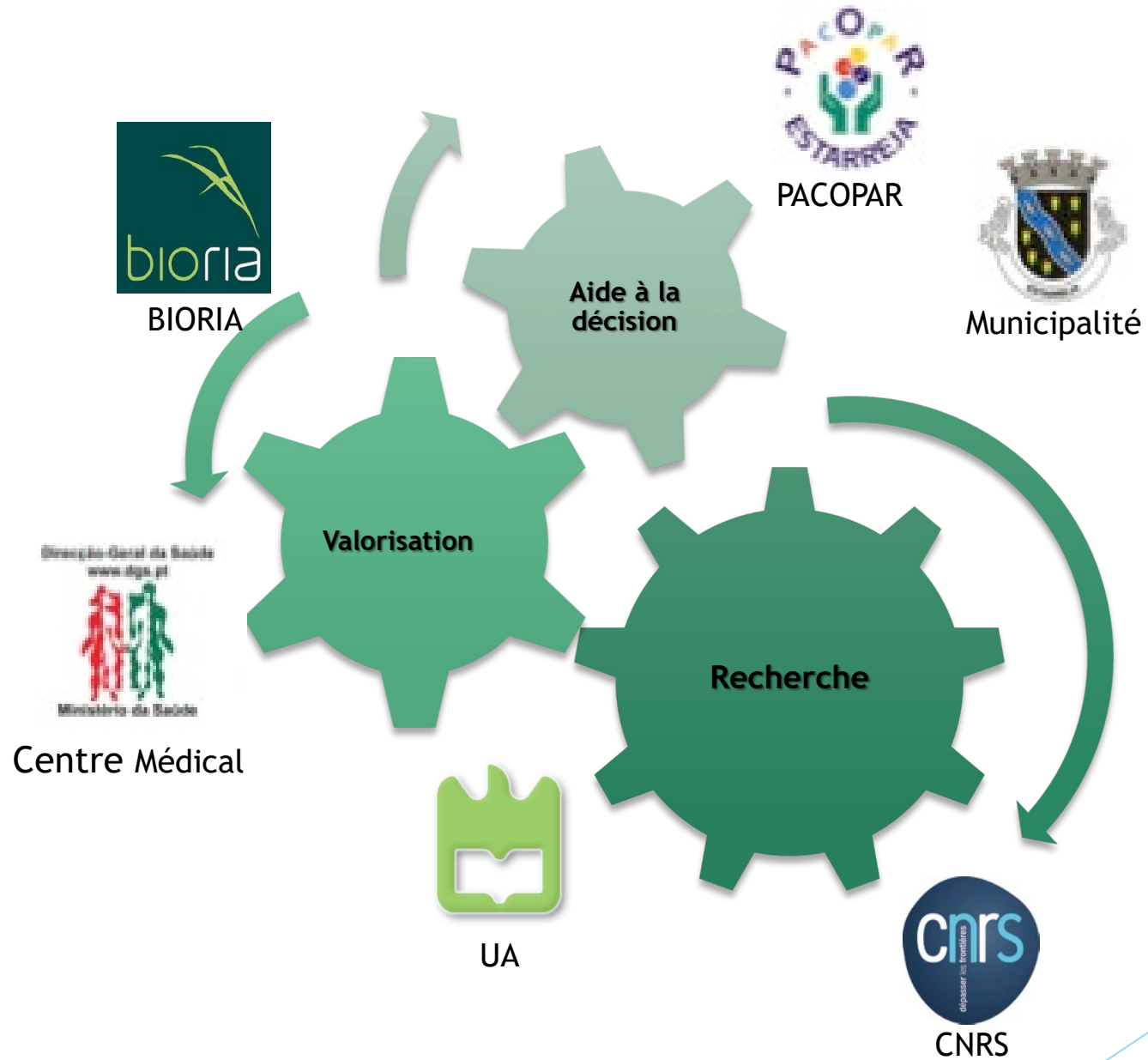
Compétences pluridisciplinaires :

Aménagement du territoire, Anthropologie, Biochimie, Biogéochimie, Biologie, Botanique, Chimie, Dendrologie, Droit de l'environnement, Ecologie, Eco-épidémiologie, Ecologie de la santé, Economie, Ecotoxicologie, Géochimie, Géographie, Géologie, Géologie Médicale, Hydrologie, Ichtyologie, Limnologie, Nutrition, Pédologie, Santé publique, Sédimentologie, Sociologie, Toxicologie



Equipes de recherche impliquées





Mutations du territoire – évolution des questionnements

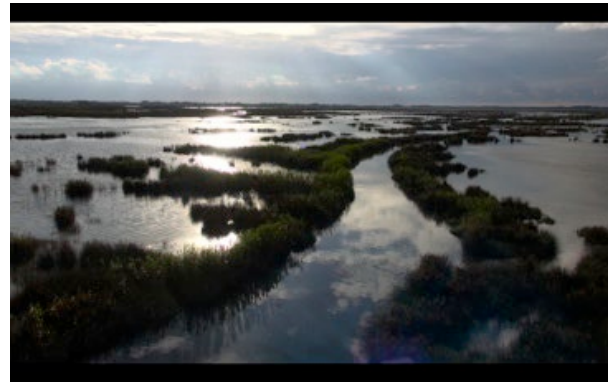
1 - **Pérennisation** de l'objet central d'étude : le **CQE**, élément stable du paysage Estarrejense

2 - Eléments **nouveaux** pouvant perturber l'anthropoécosystème :

- Les conséquences de la **crise économique** : modifications socio-économiques, réactivation d'une activité agricole familiale, effets migratoires...
- Les conséquences **des changements climatiques** : crues de la lagune, salinisation des terres, augmentation de l'amplitude des marées dans la lagune, submersion du cordon lagunaire...



Ajustement continu des **problématiques** abordées par l'OHMI



Thématiques prioritaires



- Les Contaminants organiques (PAHs, PCBs dérivés chlorés, EOPs) - perturbateurs endocriniens, et leurs effets sur la santé;



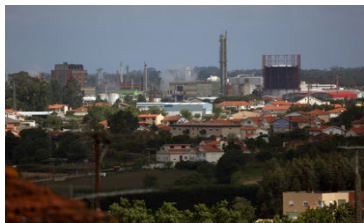
- La lagune, en tant qu'espace menacé (activité préservé) (espace protégé : BIORIA);



- L'activité économique et la mobilité des populations, en lien avec les restructurations industrielles;



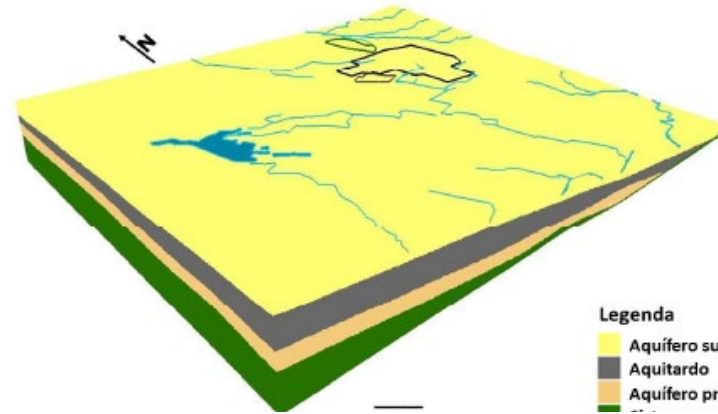
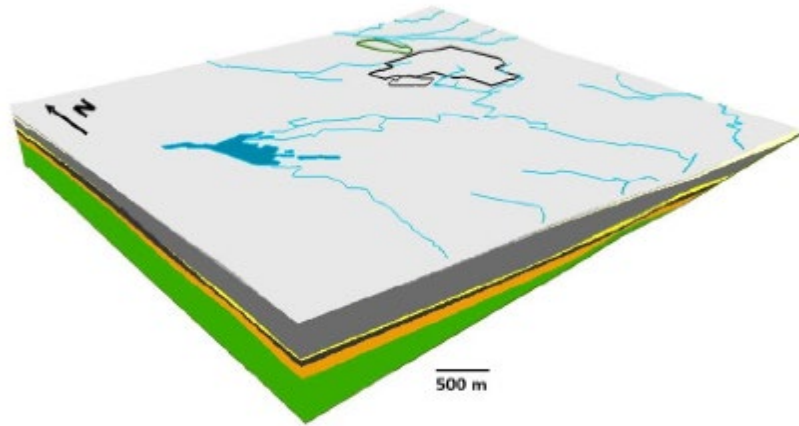
- Perceptions sociétales de l'environnement, évolution de la sensibilité écologique;



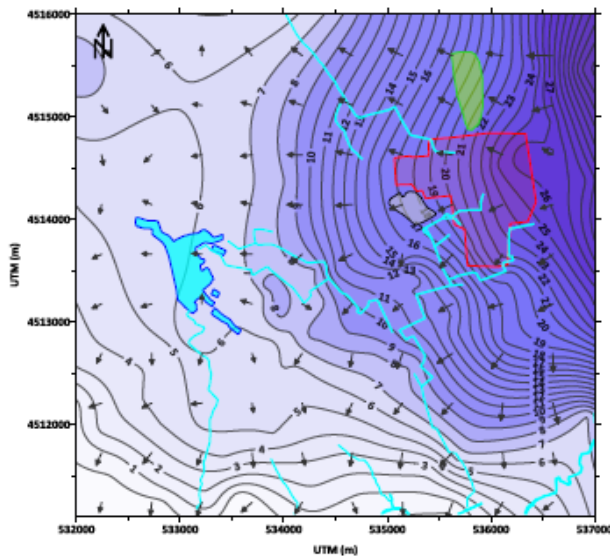
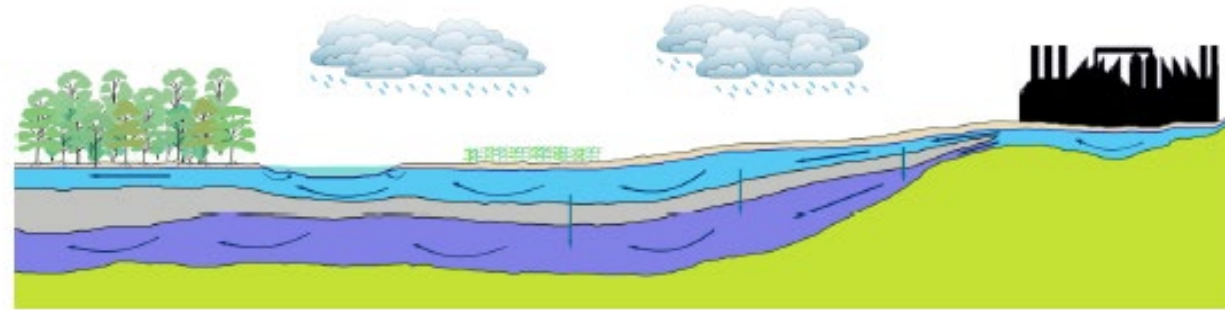
- Synthèse spatio-temporelle des données (SIG)



Nouveaux résultats – l'aquifère d'Estarreja



Géologie - sables à haute perméabilité



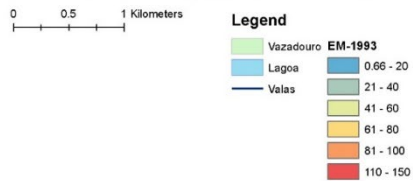
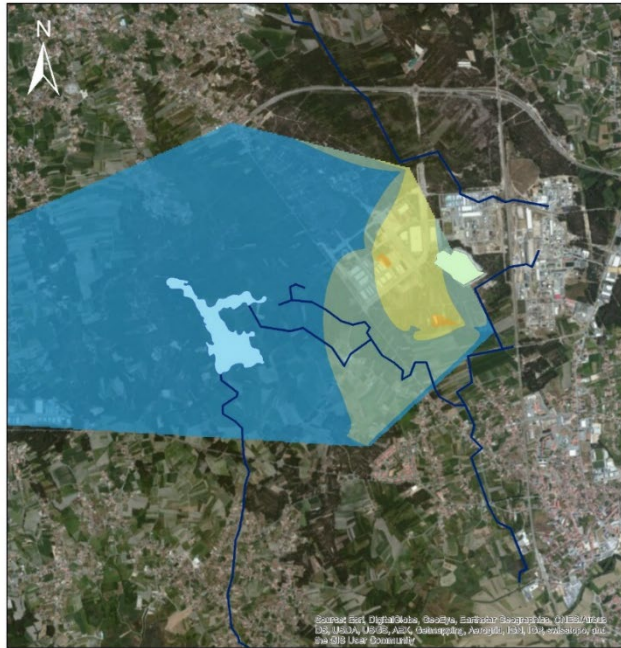
- LEGI**
- Isoplezas
 - Direcções de fluxo
 - Linhas de água
 - Lagoa de Veiros
 - CQE
 - Parque de lamas CIRES
 - Aterro ERASE

Hydrogéologie - Aquífero de surface (peu profond)

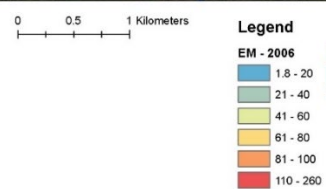
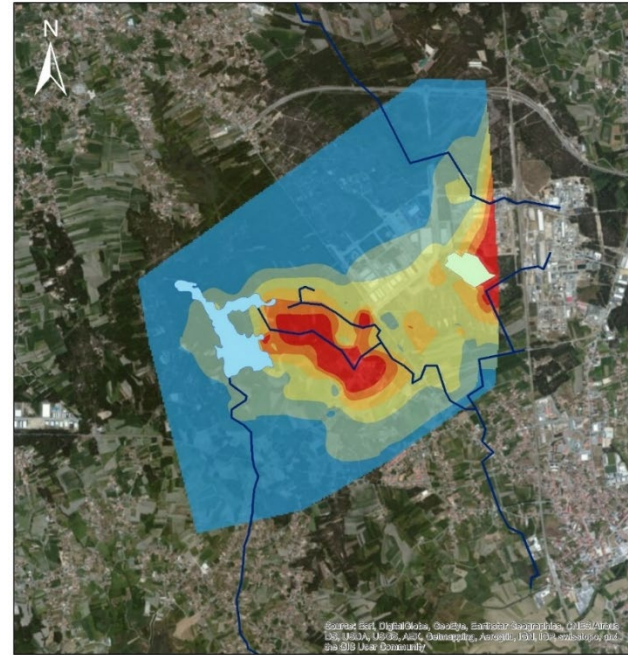
Direction de l'écoulement des eaux souterraines



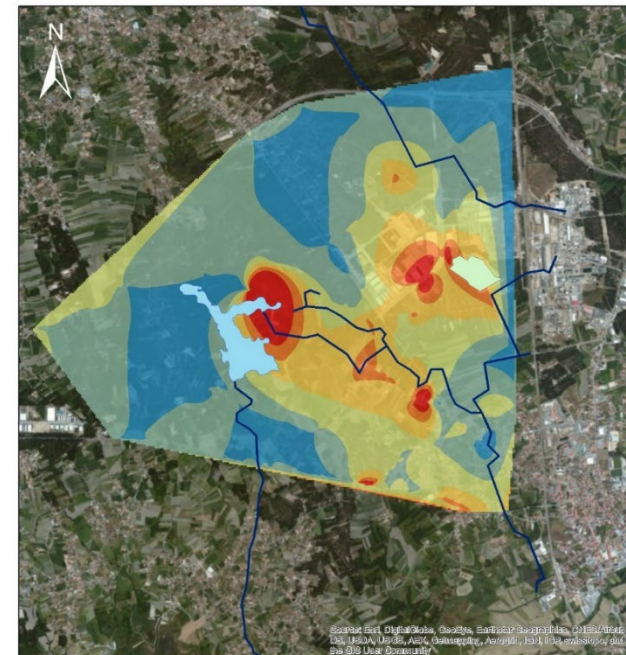
Nouveaux résultats – géophysique – méthode électromagnétique



1989



2007



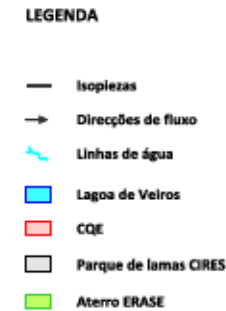
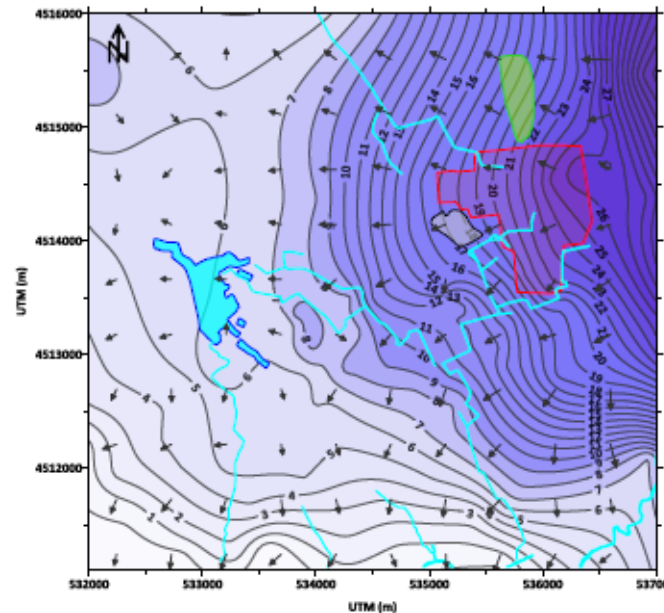
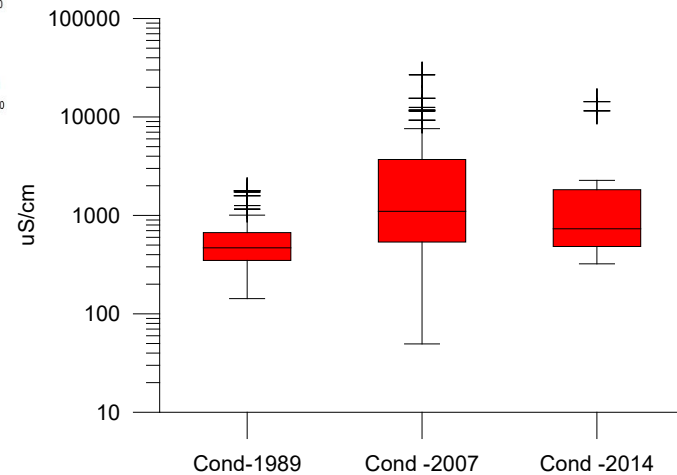
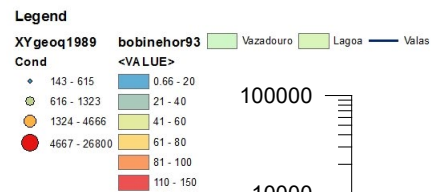
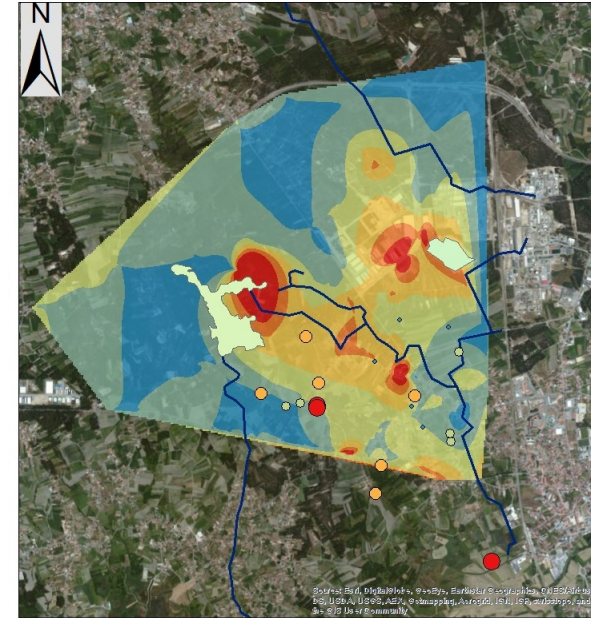
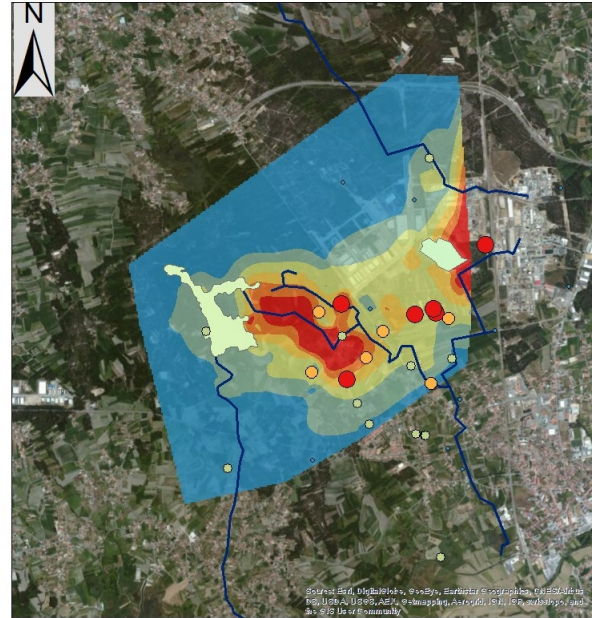
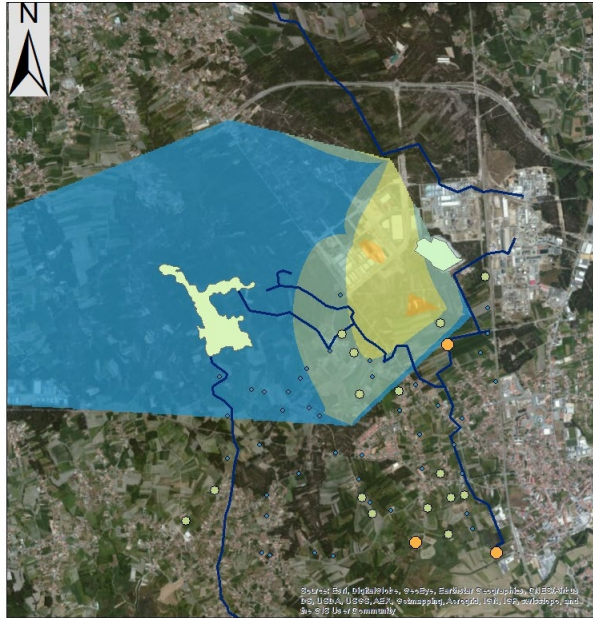
2015

Variation temporelle et spatiale dans l'aquifère de surface

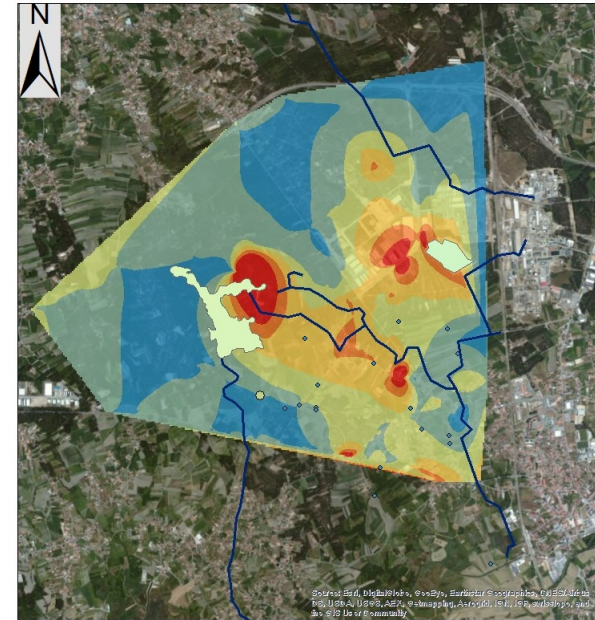
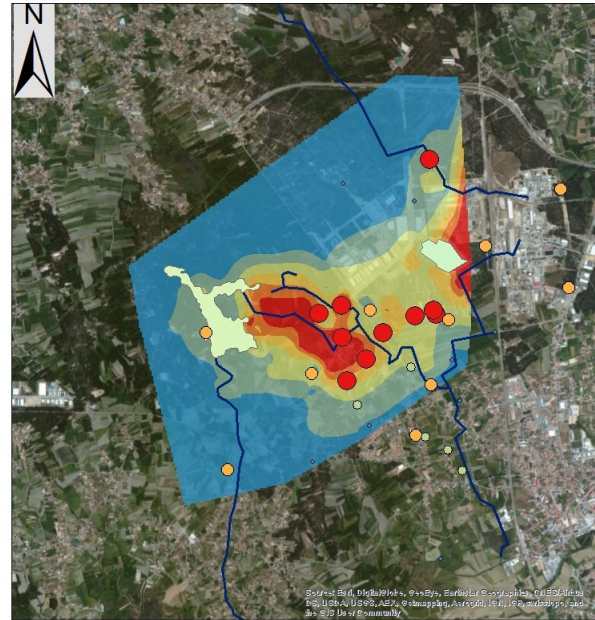
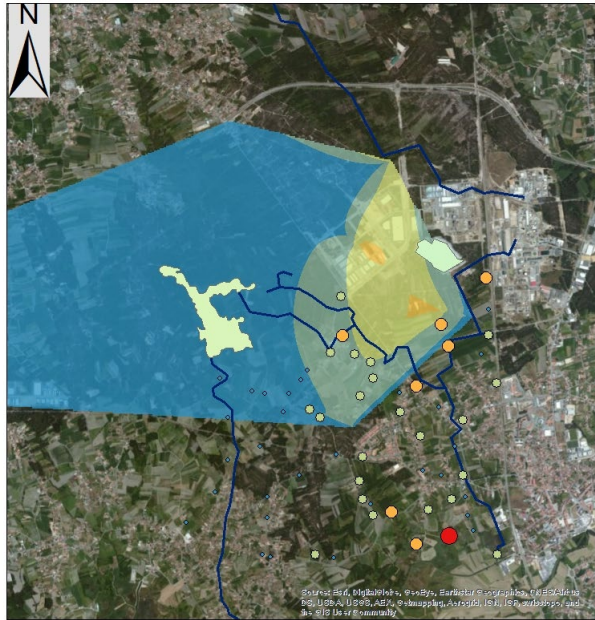
Migration de la contamination et effet de dilution



Nouveaux résultats – géochimie – Conductivité



Nouveaux résultats – géochimie – Métaux

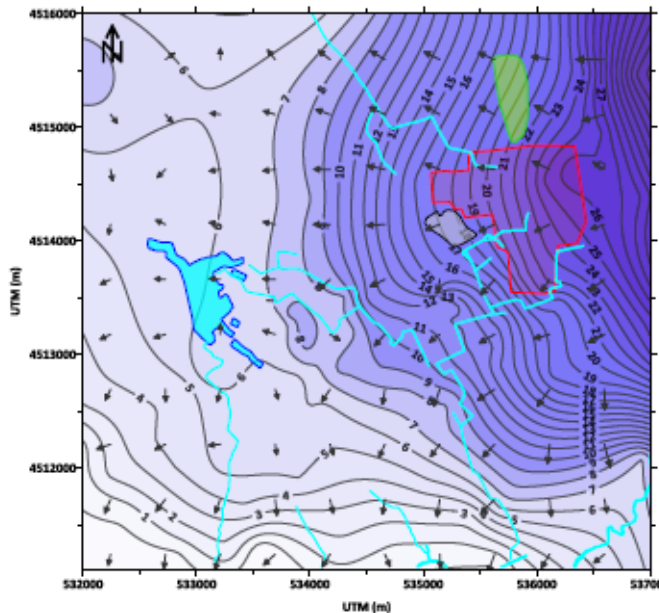
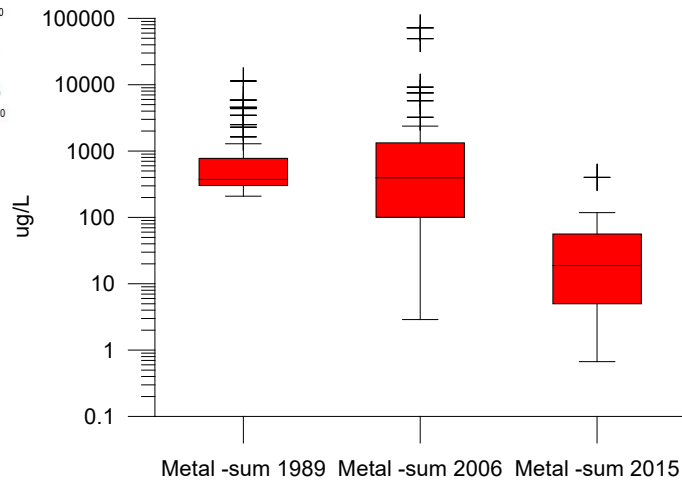


Legend

XY1989_metal_2 bobinehor93 Vazadouro Lagoa Valas

SomaMetals <VALUE>

- 209.00 - 368.00
- 368.01 - 1298.60
- 1298.61 - 8558.80
- 8558.81 - 16700.00



LEGENDA

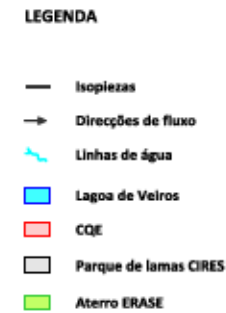
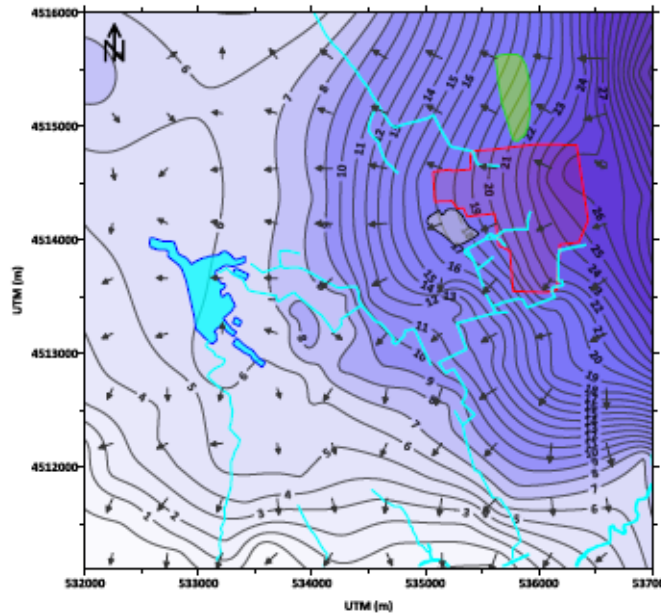
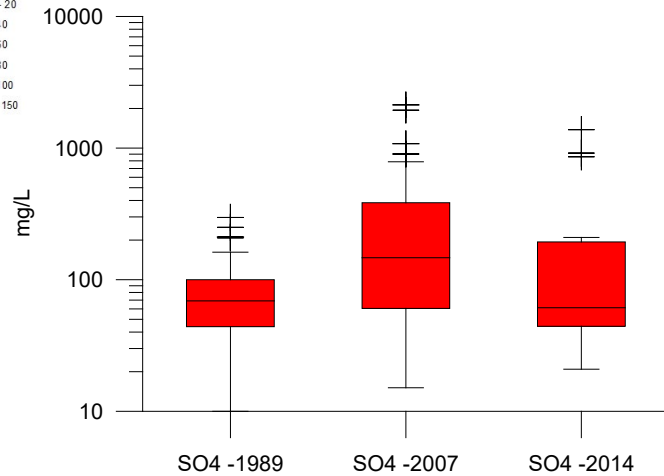
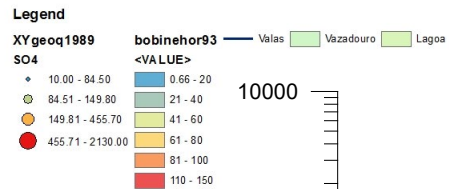
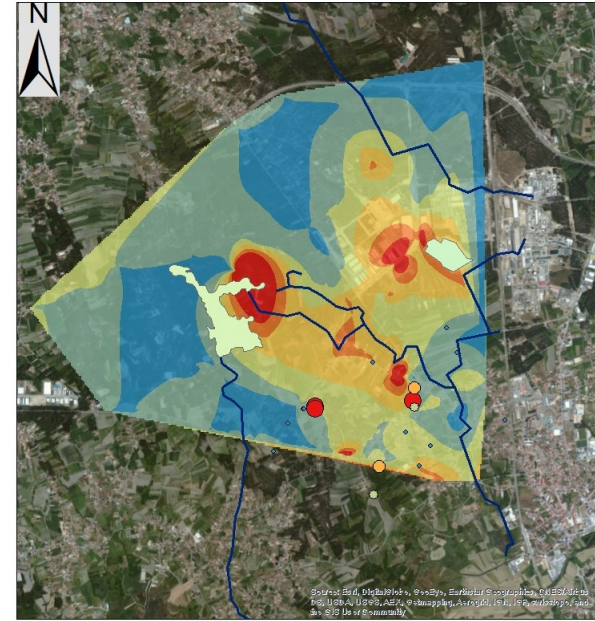
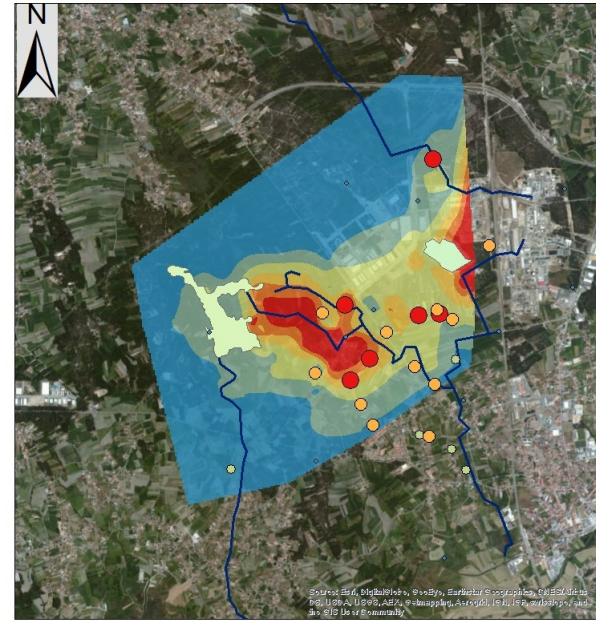
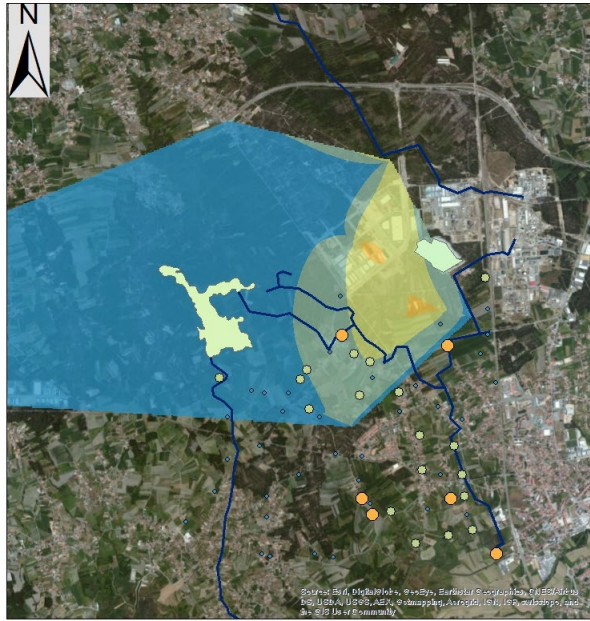
- Isoplezas
- Direções de fluxo
- Linhas de água
- Lagoa de Veiros
- CQE
- Parque de lamas CIRES
- Aterro ERASE

0 m 500 m 1000 m

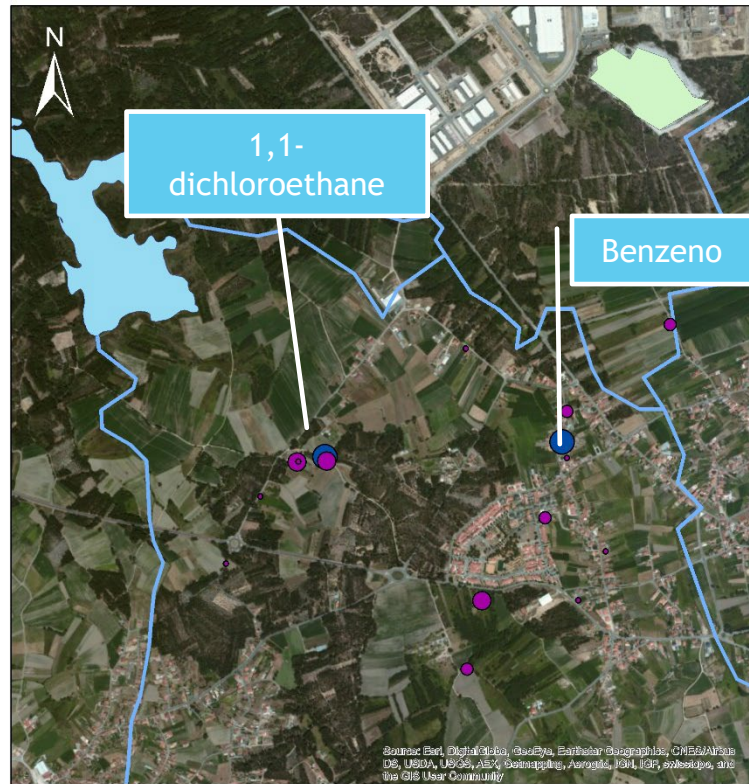


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Nouveaux résultats – géochimie – Sulfates



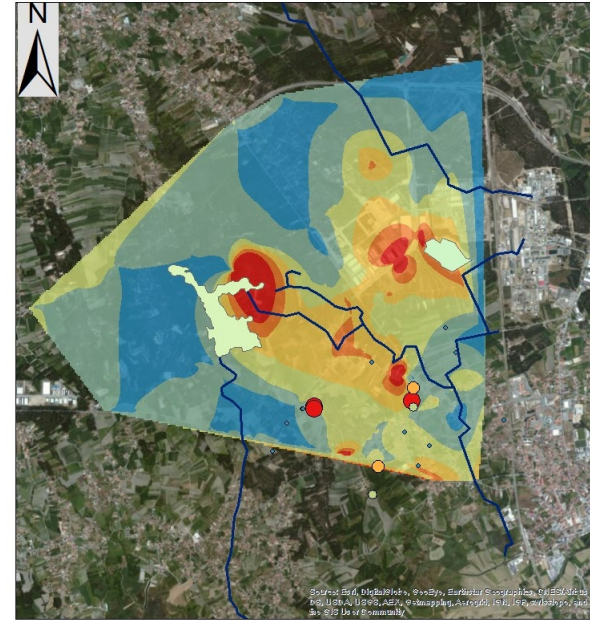
Nouveaux résultats – géochimie – VOC's



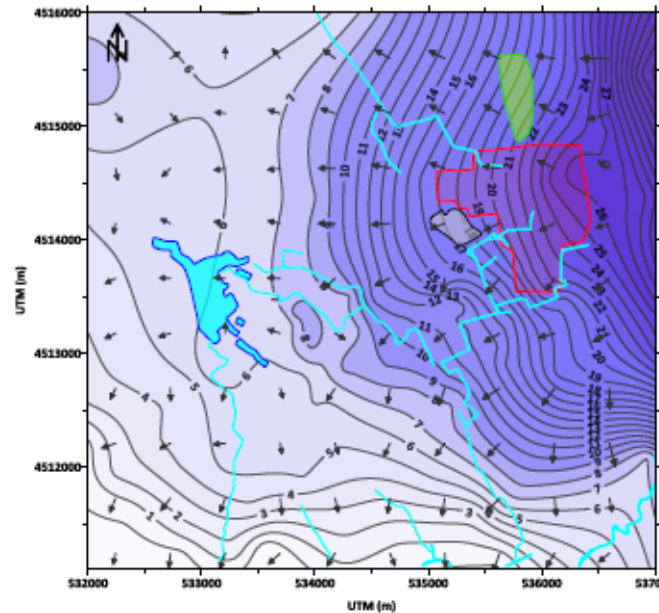
0 0.3 0.6 Kilometers

Legend

- VOCs - Sum**
- 0.000 - 0.297
 - 0.298 - 0.786
 - 0.787 - 3.692
 - 3.693 - 712.190
- Vazadouro
 - Lagoa
 - Valas



0 0.5 1 Kilometers



LEGENDA

- Isoplezas
- Direções de fluxo
- Linhas de água
- Lagoa de Veiros
- CQE
- Parque de lamas CIRES
- Aterro ERASE

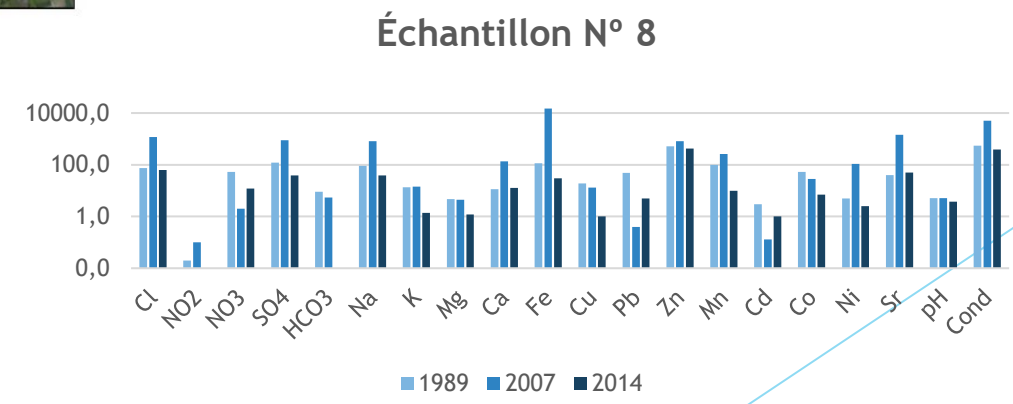
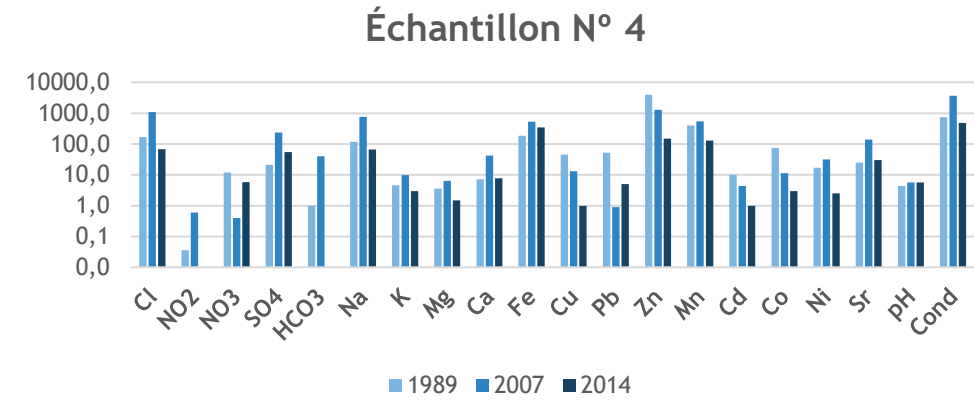
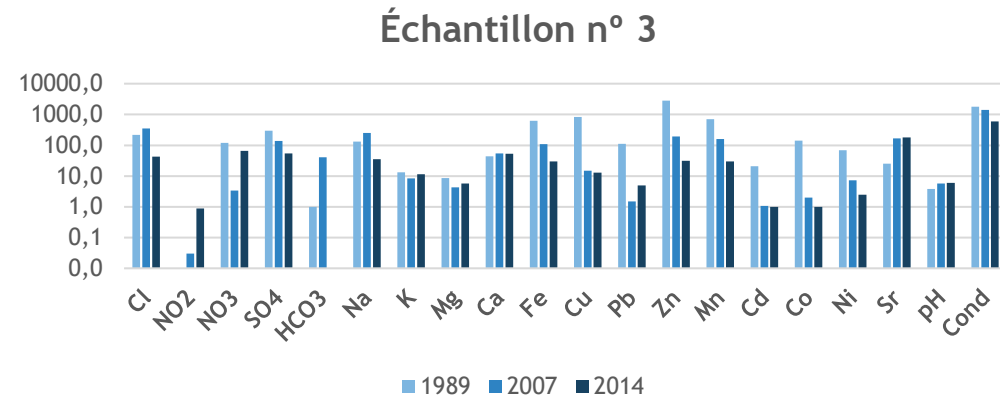
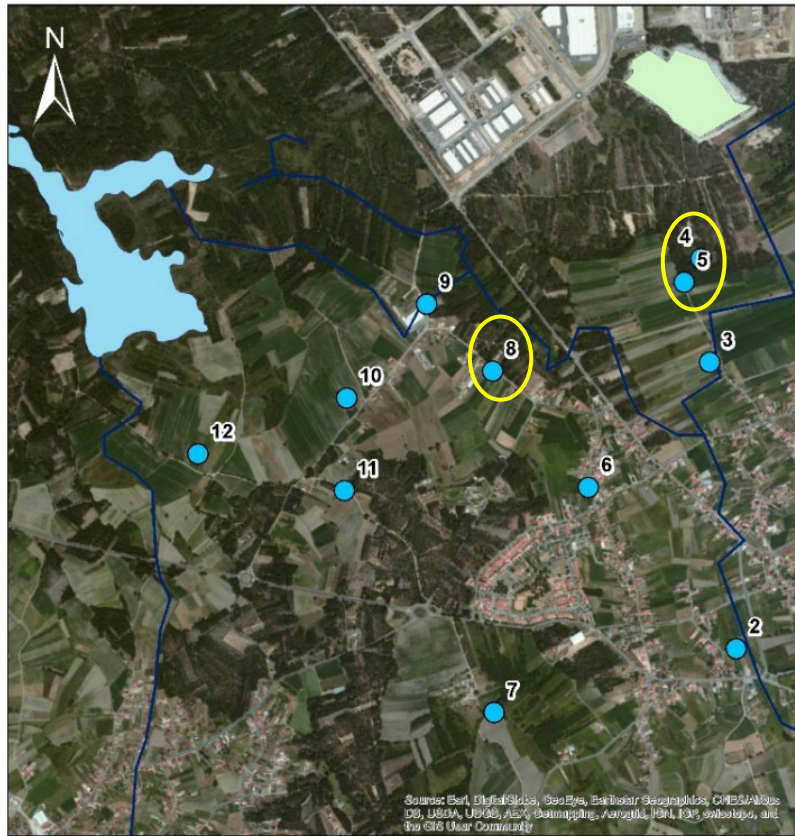
0 m 500 m 1000 m



ohm
Observatório
Hídrico de
Médio Rio



Nouveaux résultats – géochimie – Métaux



Reduction des concentrations des métaux de 1989 à 2015

