How to arbitrate the uses of urban soils on "quality" criteria; The importance of interactions between knowledge and know-how and transdisciplinarity.

Dumat C., Sochaki L., Messina M., Dupouy D., Schreck E.





### Uses and challenges of urban soils



-Policy  $\leftrightarrow$  Public space

### Arbitrating on soil quality criteria!

Agronomic quality & Other qualities ... What are we talking about? Complex ecosystems.

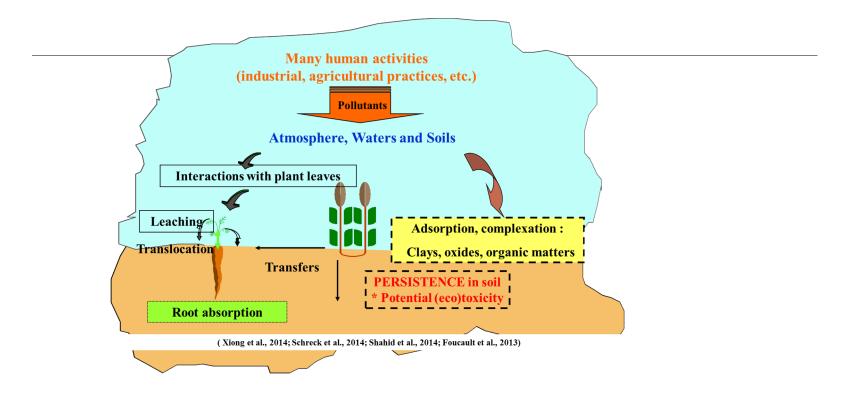
Continuum / criteria measured and observed.

As in human health, cost-benefit arbitrage: humanistic efficiency and common sense!



+ Measures and observations
→ + scientific knowledge.
But, ↑ budget, t consumed !
REX - Regulation - "MOOC"

**Continuous soil artificialization** reducing the cultivated area (490,000 hectares lost, 2006 to 2014 in France). In addition, environmental pollution is often observed  $\rightarrow$  (eco) toxicity.



**Complex Ecosystems :** Soil-Plant-Atmosphere-Nutrients

And pollutants ... Numerous interactions! Communicate pedagogically and collectively develop operational tools, procedures and regulations: Society & Science.



#### Expectations of the gardeners: quality vegetables!



High biomass produced.

Tasty productions.

Various nutritional intakes.

And of course, no pollutants!

-What to look for? History, databases

-Regulations? Ex. Cd, Pb, Hg and not As ...

-Crématorium non ICPE

# Interactions knowledge & know-how and transdisciplinarity.

□ "With ifs, we put Paris in the bottle!
...
Complexity ↔ Simplexity

□ Approach by skill !

□ Respectful interactions → synergies [researcher & farmer]

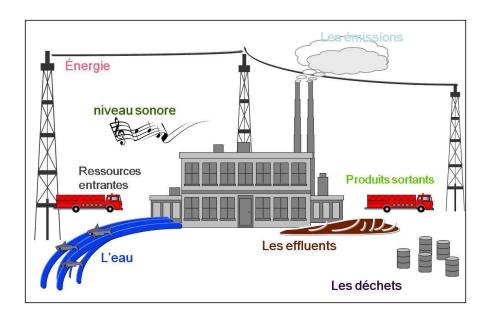


### -Integrated regulation -Collective scientific expertise

□ ICPE / soil protection.

But in reality: there is also lobbying, knowledge gaps ...

□ The means of continuous improvement and criteria to check progress.



## Thank you for your attention

Multi-stakeholder and transdisciplinary projects underway ...



- -Change of practices
- Pragmatic remediation
- -AU, zone of the 15 sols

