



HAL
open science

Soil health by 2050: respecting 'soilscapes' is the key

Alexandre M.J.-C. Wadoux

► **To cite this version:**

Alexandre M.J.-C. Wadoux. Soil health by 2050: respecting 'soilscapes' is the key. *Nature*, 2024, 626 (7997), pp.33-33. 10.1038/d41586-024-00201-w . hal-04511335

HAL Id: hal-04511335

<https://hal.science/hal-04511335v1>

Submitted on 19 Mar 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Copyright

Soil health by 2050: respecting 'soilscapes' is the key

Alexandre M. J.-C. Wadoux

National Research Institute for Agriculture, Food and Environment, Montpellier, France.

The European Commission is proposing to create soil 'districts' to improve the evaluation and monitoring of soil health in European Union member states so that all EU soils are in a healthy condition by 2050 (https://environment.ec.europa.eu/publications/proposal-directive-soil-monitoring-and-resilience_en). European scientists are collaborating with land users and national environmental agencies to provide an operational definition of such districts so that they are maximally effective.

These districts of homogeneous soils must be large enough to be managed by a single authority, for soil-health assessment and for implementing policy. Given the diversity of soils in the EU, using homogeneity with respect to soil class or property could lead to an unmanageable number of districts. Spatial units should instead be homogeneous in terms of soil-landscape relationships, or 'soilscapes' ([https://doi.org/10.1016/S0016-7061\(00\)00101-4](https://doi.org/10.1016/S0016-7061(00)00101-4)). A district would then comprise a limited sequence of soil types amenable to similar management and policy. An effective soil district definition must also consider the national borders of member states and local EU administrative units, ensuring that the spatial contiguity of the districts is maintained.