

## **Temporary Dataset Download: Soil function data measured in LUCAS 2018 sites across the EU**

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| ID                   | 132581                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Date - Time          | Sat, 08/22/2026 - 19:56                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| Organization         | iCEV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Type of Organization | University                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| -- Other             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Purpose              | I am requesting the LUCAS 2018 soil function dataset for a non-commercial academic study on the remote sensing of soil biological properties, conducted within the TERRA-Simulation research line at the Federal University of Technology - Paraná (UTFPR), Brazil. The study addresses a methodological question raised by recent work predicting soil microbial groups from canopy reflectance at continental scale (Harris & Bardgett, New Phytologist 249(2), 2025). That work reports $R^2$ of 0.67-0.86 for PLFA-based microbial groups, attributes the mechanism to plant mediation, and validates using a random 70/30 split. Two aspects of that design are likely to inflate the reported skill without any error on the authors' part: soil microbial communities and canopy spectral signal both covary with land cover and climate, and random partitioning of spatially autocorrelated soil samples places neighbouring observations on both sides of the split. My objective is to quantify both effects rather than to arg |
| Notes                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

### Notifications:

- The data provided has been prepared for use by internal research activities in the Joint Research Centre (JRC) Ispra in collaboration with German Centre for Integrative Biodiversity Research (iDiv) and other institutes. The research activities support the LUCAS soil campaign. The LUCAS Soil sample collection is supported by the Directorate-General Environment (DG-ENV), Directorate-General Agriculture and Rural Development (DG-AGRI) and Directorate-General Climate Action (DG-CLIMA) of the European Commission.
- The data are the result of JRC research activities and are primarily made available for further research. The JRC does not accept any liability whatsoever for any error, missing data or omission in the data, or for any loss or damage arising from its use. The JRC agrees to provide the data free of charge but is not bound to justify the content and values contained in the databases.
- The permission to use the data specified above is granted on condition that, under NO CIRCUMSTANCES are these data passed to third parties. They can be used for any purpose, including commercial gain.
- The user agrees to:
  - a) Make proper reference to the source of the data when disseminating the results to which this agreement relates;
  - b) Participate in the verification of the data (e.g. by noting and reporting any errors or omissions discovered to the JRC).

References:

Zeiss, R., Eisenhauer, N., Orgiazzi, A., Rillig, M., Buscot, F., Jones, A., Lehmann, A., Reitz, T., Guerra, C. A. (2022). [Challenges of and opportunities for protecting European soil biodiversity](#). Conservation Biology, 36(5), e13930.

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