



## WorldCereal - Call for reference data for global crop mapping

The SDG2 aim to achieve "zero hunger", requires among others ensuring sustainable food production systems and implement resilient agricultural practices. However, essential information required to monitor this goal, a timely global view of the total agricultural area, and the proportion of the different crop types, is currently unavailable.

[WorldCereal](#) has the ambition to consolidate, build upon, improve and extend existing crop mapping technologies in an overarching system that is designed to work from a local to global scale and that can be operated by a wide variety of users from different communities. To generate accurate cropland and crop type maps, high quality reference data is indispensable for both training classification algorithms and validation of the final products. WorldCereal is therefore aiming at setting up an extensive network of data providers and developing a collaborative approach to make such agricultural data available, accessible and reusable.

Global research tends to adopt more and more an open approach towards open science and the sharing of research data as a public good<sup>1 2 3</sup>. Such practices are often encouraged or even required by many of the large global research funders. Following this general movement towards data sharing and open science, WorldCereal's approach is to provide data, including reference data, as a commons under open licensing where possible. We strongly believe that the provision of open data will be an important multiplier for the eventual benefits for society. It will also further promote open science in the food security domain, increasing the impact of individual research data providers and the global research community.

### What do we ask?

WorldCereal asks holders of reference data to become a data provider, contributing with reference data to improve local, regional and global crop mapping products. We are exclusively collecting a very limited set of key data (e.g. crop type, location and timestamp), thus there will in many cases be no need to supply full research data sets. Following the commons approach, we prefer that reference data is provided under an open license.

### What do we offer?

We offer data providers an opportunity to participate, to contribute to advance the state-of-the-art of global crop mapping and be at the forefront of this global innovative initiative. There are many incentives to open up available research data for the public good. As a data provider you will contribute to the monitoring of several SDGs, specifically related to food security and zero hunger, which adds to fulfilling corporate social responsibility objectives. Obviously, the collaborative

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<sup>1</sup> <https://ec.europa.eu/research/openscience/index.cfm?pg=openaccess>

<sup>2</sup> <https://en.unesco.org/science-sustainable-future/open-science>

<sup>3</sup> <https://opendatacharter.net>

collection and harmonization of reference data will eventually create a stronger knowledge base for further and more impactful research and data science for any organisation involved.

To strengthen and complement such general incentives, WorldCereal aims to further optimize the benefits for its data providers in several ways:

- WorldCereal will involve data providers in its project activities, allowing them to have first-hand access to information and to benefit from co-development and evolving added value products
- WorldCereal aims at providing knowledge and (limited) financial support to data providers, to attend workshops and to support in data curation and open data publishing
- As WorldCereal will harmonize heterogeneous reference data sources, and provide a uniform set of data, extending the data and research opportunities of individual providers.
- WorldCereal will co-develop joint publications in consultation and collaboration with data providers
- WorldCereal will in all its communication and dissemination ensure visibility of contributions, by attribution to the involved data providers
- WorldCereal will involve its data providers in new initiatives that will evolve from its activities