

Opening up FAIR in-situ land-use reference data: current gaps, obstacles and future challenges

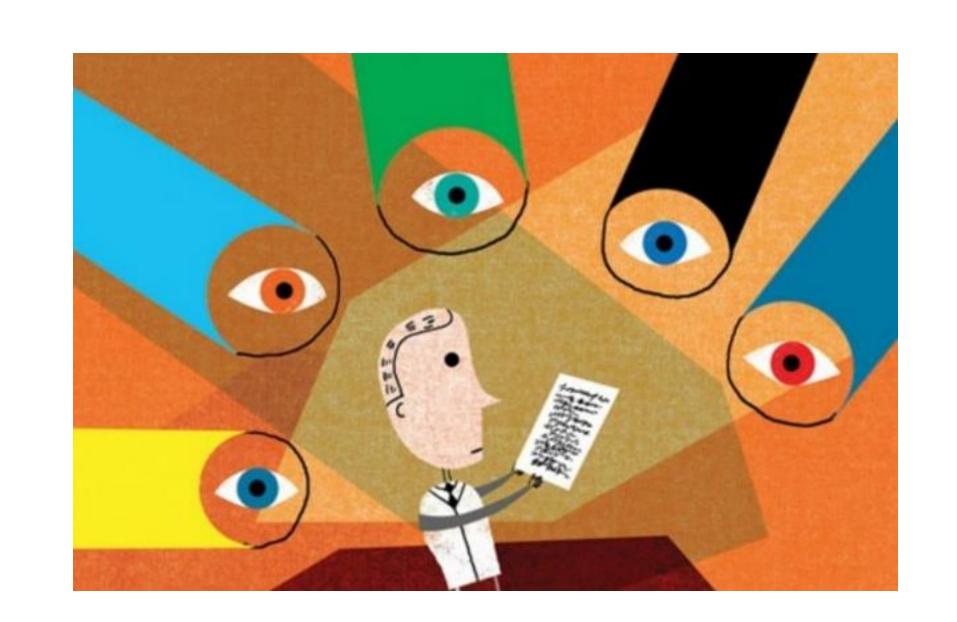
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25 April 2023

Scientists Have a Sharing Problem

To address current global challenges and achieve the SDGs in the land-use sector, monitorization and evaluation using remote sensing technologies are essential. The Copernicus program makes available unprecedented free and open Earth observation data.

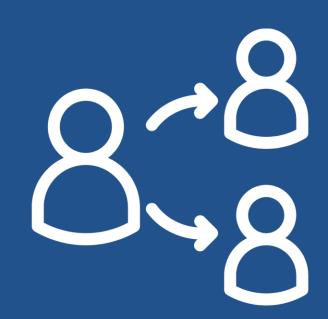
However, in order to improve our remotely sensed based machine learning models, it is of utmost importance to **train data** in the form of in-situ or annotated land-use or land cover data, which are based on the visual interpretation of aerial photographs or very high-resolution satellite data. Without sufficient training data, many land-use and land cover maps lack sufficient quality.







Tools and projects to close current gaps



Current limitations to data sharing

ESA WorldCereal

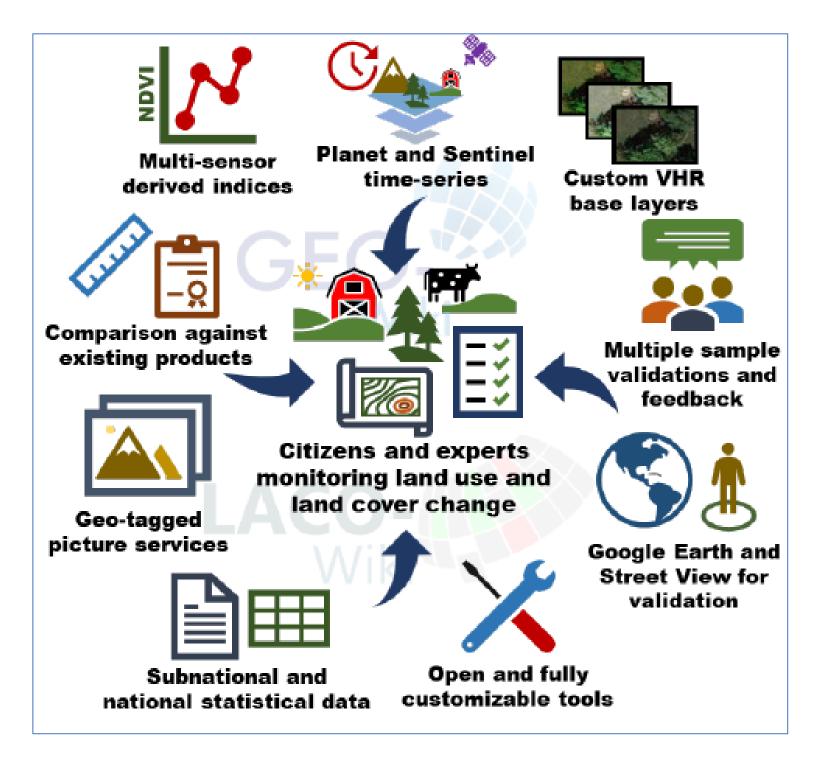
https://blog.vito.be/remotesensing/worl dcereal-benchmarking

https://blog.vito.be/remotesensing/worl dcereal2020

Picture Pile



Geo-Wiki Toolbox



Other data sets

Lesiv et al., (2022). Global forest management data for 2015 at a 100 m resolution. Scientific Data, 9(1), 199. https://doi.org/10.1038/s41597-022-01332-3

Fritz et al., (2017). A global dataset of crowdsourced land cover and land use reference data. Scientific Data, 4(1), Article 1.

https://doi.org/10.1038/sdata.2017.75

What do I want?

I care about sharing improvements

I want it simple and permissive

Open-Source Software

MIT License

HNU GLPv3

Creative Commons

Attribution

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Attribution-ShareAlil

What can others do?

People can do anything they want with your data/code as long as they give appropriate credit

Anyone who distributes your data/code, or a derivative work, must follow the same terms

More licenses: <u>www.choosealicense.com</u> <u>www.creativecommons.org/choose/</u>

Fully open?

- Community improves documentation tests code and verifies it
- Map coverage service data directly accessible
- Discoverable via Catalogue
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What do YOU think are obstacles to data sharing?

https://meetingorganizer.copernicus.org/EGU23/session/45403







