

AI4FoodSecurity (South Africa)

Challenge closed

Sections ↓

Rules

For your submitted solution to the AI4FoodSecurity (South Africa) Challenge challenge to be eligible, the following rules need to be adhered to:

Timing and duration

The AI4FoodSecurity challenge will take place online from 4 October 2021 to 9 January 2022.

Participants

Participants from all over the world can join. You must be over 18, or of legal age in your jurisdiction, in order to participate.

Teams

Each team is required to appoint a team leader. This team leader will be the main contact point between the organisers and the team and will also be responsible to ensure a smooth team cooperation, and, if your team wins, to make a request on the spending of your team's award points after discussion



Challenge solution

For the challenge, you will have access to the training datasets and a range of tools in the form of a Jupyter notebook throughout the duration of the challenge. The teams must propose a solution for our AI4EO challenge, using an AI algorithm.

The following rules apply:

- no data source other than the ones provided can be used for the development of your solution and to produce your outputs;
- pre-trained models are allowed;
- the test data cannot be used for training of the models;
- the target cultivated land map cannot be used as an input to the method

(i.e. trivial solution).

Code for the winning solutions will be reviewed to ensure rules have been followed. Each participant will be allowed to upload a maximum of one result per hour (to avoid overload and unfair behaviors). The final submission of your solution must be made by 9 January 2022, at 16:59 CET, and each final entry must consist of:

1. a. the output dataset, consisting of field ID and associated crop ID:
 - Covering all fields selected for scoring from the AOI of interest (South Africa) for track #1 (within season crop identification).
 - Covering all fields selected for scoring from the AOI of interest (Brandenburg, Germany) for track #2 (portability of models for crop identification across growing seasons).
2. b. The algorithm, as a Jupyter notebook

Challenge evaluation

The evaluation of the solutions submitted will be performed in two stages: live scoring of the accuracy of your solution throughout the challenge, which will be visible on the leaderboard on this platform; and an evaluation by a jury consisting of experts after the final submission of your code.

Your final score will be calculated by combining the rankings of the quantitative results of your submissions (75% of the total score) with the rankings of the scores from the judges on a set of criteria: quality of the documentation, creativity and originality, contribution to open science, scalability and reproducibility (25% of the total score).

The total score of a participant will be calculated as follows:

- 75/100 will be based on an automatic calculation of the accuracy of your

output datasets, using the following metric:

- Cross Entropy with binary outcome for each crop (field level)
- 25/100 will be based on an evaluation by a jury, which will consider the extent to which you effectively used or incorporated the datasets provided and the methodologies you applied, in addition to uniqueness, quality, reproducibility and contribution to open science of your solution.

The results presented will have to be reproducible by the challenge organisers, starting only from the analysis data set.

The qualitative jury evaluation will produce a qualitative jury score what will be based on the following parameters:

- How well code is documented
- Level of creativity and originality
- Contribution to Open Science
- Completeness and scalability of the released code.

Prizes

Six winning teams (three for each track), will have the chance to win a pot of award points, which can be spent on the prizes listed in the challenge-specific catalogue after a request has been made by the team leader for the distribution of the selected prizes to the Organisers.

Use of commercial data in this challenge

By registering for, or submitting materials to this challenge, you are accepting the licensing terms and conditions on the use of commercial VHR imagery, as

stated in the Terms and Conditions of AI4EO.

Announcements of the winners

The winning projects will be disclosed in January 2022.

Force Majeure

In case of force majeure, for example network connection issues to the server computing the metrics, data download issues, issues with the cloud computing resources, or other incidents not controlled by the organizing team, the organisers will determine, based on the severity and duration of the incident, if and for how long the challenge should be extended. Such information will be communicated to the participating teams as soon as possible within European working hours.

Full Terms and Conditions

By participating in this challenge, each team member agrees to the Terms and Conditions provided under this link. "The Planet fusion data are made available under a CC-BY, open-source- CC-BY-SA license. As an exception to the AI4EO Terms and Conditions published on this website, you confirm, by participating in it, that you agree that your results will be made public under the same, open-source license.

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AI4EO is carried out under a programme of, and funded by the European Space Agency (ESA).

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