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Geoscientific Model Development Discussions

Interactive comment on "Plant functional type classification for Earth System Models: results from the European Space Agency's Land Cover Climate Change Initiative" *by* B. Poulter et al.

Anonymous Referee #2

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The paper by Poulter et al. presents a tool of conversion of european land cover classification to Plant Functional Types. This work is highly valuable to the validation and evaluation of dynamic vegetation models. However, I think that the manuscript could better reflect the authors' important contribution.

To me, the core of the innovation in this paper is the conversion of land cover to PFT. However, the choice of conversion tresholds (Table 2.) are barely justified and discussed. I believe a more detailed report of underlying discussions would be valuable to the scientific community. During the discussions for a consensus, which challenges were discussed?, and what were the arguments? How these choices would influence the results? Are uncertainties associated to these values and propagated? One obvi-

ous problem is that land cover information is not enough to derive PFT. Which additional information is crucial to add, and/or was efficient to discriminate between PFT?

The the comparison with original PFT maps is very interesting. However, are they available observations to evaluate the different classifications? What are the challenge of such evaluation? The results highlight differences between PFT maps, but what are the advantadges of your classification among others?

In general, the structure of the manuscript could be improved to help the reader follow the rational of the approach, and the manuscript could be shortened in order to be more concise. The introduction could be more focussed on a clarified objective such as obtaining trustable PFT maps for vegetation models validation. Some part of the manuscript are very descriptive and highly redundant with the information contained in tables or figures.

Finally, it is mentionned that uncertainties are given, from different classification schemes. What are the different sources of uncertainties accounted for? And what are the one ignored? The mapping of uncertainties is very important and this feature could be more discussed.

Interactive comment on Geosci. Model Dev. Discuss., 8, 429, 2015.