

Interactive comment on “Quantifying the carbon uptake by vegetation for Europe on a 1 km² resolution using a remote sensing driven vegetation model” by K. Wißkirchen et al.

Anonymous Referee #2

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In my opinion the paper is worth to be published if a deeper discussion on results presented could be carried on.

Here a few suggestions:

- Authors should go deeper in proposing founded reasons for models deviations from observed data.
- Authors should put the validation of the model in a wider contest: do other models of the same type exist? How do they perform when validated against similar databases? Is there consensus in the scientific community in this field on what a "good" model should look like? How does the presented model is positioned in this value scale?

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- Related to the previous questions: usually models are developed for addressing a certain number of issues, as perfect correspondence between model results and measures on all parameters, whatever time and space scale is not usually feasible. It is not clear what is the key issue of the model proposed here: Figures 1 and 2 would suggest the spatial detail of the output is the key plus expected from the model, but in this case authors should focus their validation on systematically evaluating point-to-point correspondence with measured results, possibly using more advanced statistic performance indicators than the ones proposed in the paper. On the contrary, spatial and time averaged GPP values are presented in Tables 4 and 5, so giving the reader the impression the model had these values as main target.

In conclusion, the work is interesting and in my opinion adds interesting material to scientific discussion in this field. Nevertheless model validation should be put in a wider context and more focused on proving the actual specific added value of the proposed model in comparison with state-of-the-art for the key parameters the model was designed to better reproduce.

Interactive comment on Geosci. Model Dev. Discuss., 6, 2457, 2013.