#	Comment	Answer
1	Improve readability: there are multiple acronyms throughout the text (and also in the figures) which are not always easy to remember (reader needs to search through the document). Some of the explanations are very specific for forest managers or forest researcher (e.g. see my comment on track corners). I think the soil moisture monitoring system you have developed is valuable and very interesting.	Agreed, specific acronyms will be reduced to minimum.
2	Scientific discussion and placing your SM monitoring within the context of available literature and ongoing SM monitoring efforts elsewhere: I miss more discussion of how the system you present is "an operational high-resolution soil moisture monitoring framework for the forests in Middle Germany, which addresses the main limitations and problems of the existing monitoring systems". What are the existing monitoring systems and what are their shortcomings? Could you include a discussion on that? Also, are you referring to existing monitoring systems in Germany or around the world? What would be a comparably good SM monitoring system in another country? An example of an SM monitoring systems, based on SM observations from cosmic ray neutron sensing would be COSMOS UK (see https://cosmos.ceh.ac.uk/data). They feature a similar system to the traffic light system you describe, you could perhaps compare it to such a system and/or include examples from forested sites.	Agreed. Existing systems we found are briefly mentioned in the introduction. The more detailed comparison will be added in the new discussion section, while information in the introduction will be reduced (current L55-65), as also requested by Reviewer #1. We are referring mainly to European systems, but we will continue our search to find, mention and compare similar systems worldwide. Regarding the COSMOS UK system you've mentioned. It is a very nice example of a monitoring system using observations. We will definitely mention it in comparison. However, as the observations are very sparse, they are unable to cover larger areas as well as to be representative with regard to spatial soil heterogeneity. In addition, coupled with absence of additional information about the site itself, it is hardly applicable for the forest management.
3	Discussion on soil moisture observations and their usefulness in such a SM monitoring framework: There is no mention or discussion on how to incorporate actual soil moisture observations in your framework and how it would benefit from it. Are there any hydrological observatories where you could apply your modelling framework but then	Agreed, will be elaborated. At the present, operational soil moisture observations are available only for Saxony (forest climate stations, measurements under grass vegetation), which are already pre-processed and delivered through a third-party data provider (Pikobytes GmbH). Unfortunately, we do not have access to similar operational

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	improve it? You make a shy suggestion in the Outlook section, but that is rather short and underdeveloped.	soil moisture data (forest climate stations) in Thuringia and Saxony-Anhalt to integrate it in the framework. We are still trying to negotiate it. In general, every similar system will definitely profit from coupling its simulations with observations, where it is possible. This helps not only to validate it 'on-fly', but in long-term to improve parameterization.
4	Perhaps too much German on figures and in text: in Section 4.4. as a non-proficient German speaker I found it difficult and unmotivating to follow. I would find it much more interesting, if the platform could be presented in the publication already with translation in English (i.e. wait until then to publish this contribution or state a date, ideally in the near future, when the website will be available in English). Alternatively you can take the focus away from the online platform and mention it briefly and also produce a short video tutorial in English for users interested in the data and science behind it. Then focus much more on discussing the science (see general comment ii).	Agreed, we plan to shift focus a bit from the web-platform description more in the framework description. Further, we plan to add a validation subsection in results and discussion section on the comparison of our platform to other existing systems. Nevertheless, at the same time we are exploring the technical solutions of adding an English version to the website. Alternatively, several browsers have a page translation plugin, which works well and translates the graphical part as well. We will shortly correct our German version text of the webpage and every caption labelling, so that the automatic translation will be almost correct. Thereafter we will test how long it will take for different browsers and plugins. Additionally, we plan to record tutorials for potential english-speaking users. Despite the fact, that the main users of the system are german-speaking forest managers, we believe the platform itself and the produced data could be of interest to the international community: both national forest authorities (i.e. to learn and build similar systems) and scientific community (i.e. in research of forest ecosystems dynamics and variability). The pilot version of the system was already presented for German-speaking users in parallel via various application-oriented journals and internet platforms.
5	If the platform is intended to engage more stakeholders and forest managers in Germany, I believe it would be much more beneficial to publish in a German scientific journal which is also easily available for environmental authorities and forest managers. This is also where German speaking scientists interested in the platform (again because it is only in German at the moment) can explore it. At the moment the only way to go through the different options is via translating the page. When you do that the images stall and the page takes longer to load. For the expert mode you need to know at least some German or be patient to translate to start using the data files downloaded.	

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6	To address such a public, perhaps also the text would need to be rewritten and more emphasis on how to use the platform and perhaps a couple of examples of the benefits of using it (i.e. practical examples) should be included.	Agreed, we will elaborate on the current section 4.4 in order to address the practical part, with examples from forest managers.
7	Figure 1: Add a small inlet of Germany in one of the corners. Complement the Figure 1 caption with the meaning of the 3206 BWI abbreviation to aid readers. Briefly explain what the black dots mean (I understand is the inventory but please make it explicit).	Agreed, will be corrected and added.
8	Line 128: Have a very brief explanation of what REST API access is (few words)	Agreed, will be added.
9	Line 139: Section 3.1. is well documented/ choices well explained. However, I suggest a more intuitive sub-header starting with the model type and then introducing the name. spell out that it is a soil hydrological model and it is 1D. Line 140: I would start the paragraph with saying what the model is about and then go into these details for the benefit of readers who are not familiar.	Agreed, will be corrected.
10	Figure 2: explain in the legend or caption what KL or RR stand for. Make the dot for the BWI sites slightly larger on the legend. Why is this figure relevant to show here and why not in Annexes?	Agreed, will be added. As we will add more (sub)sections, text and figures to the article, we move this figure in Appendix.
11	Figure 3: same comment on the BWI dot	Agreed, will be corrected.
12	Figure 4: remove "violin plots with" from figure caption, it is redundant. Otherwise figure is quite informative	Agreed, will be corrected.
13	Figure 5: useful figure giving a good overview. Small detail on caption, change to "for a selected"	Agreed, will be corrected.

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14	Figure 6: green balloon "Daily meteostation data from 2010" sounds like the data is from that year. I understand it is from 2010 onwards and up to current?	Agreed, it was done for space saving on the chart. We suggest changing it simply to 'Meteorological data' with explanation in text, that data is from 2010 onwards.
15	Section 4.1. Line 272 what does "first hundreds of meters" mean in this sentence? please rephrase or clarify. Also you could discuss the differences between the point and raster set up already in Methods (I did not see it there). This section is not so easy to read, I expect more documenting (i.e. references and comparison between raster and point set ups).	Agreed, this will be part of a new discussion section, as it was also pointed out by Reviewer #1.
16	Line 273 typo "in" instead of "is"	Agreed, will be corrected.
17	Figure 7: On your (b) plot in the legend the light yellow and green are very difficult to see. You have the same issue on the lightest colours in Figure 8 on the legend.	Agreed, we will try other common colour-blind schemes to improve visibility.
18	Fig 9: very nice and informative on the evolution of SM along a whole year	Thank you for pointing this out.
19	Line 357: for the readers who may not know what track corners are, can you please include a reference?	Agreed, will be clarified in Section 2.2
20	Figure 10: another interesting and useful figure from scientific point of view.	Thank you for pointing this out.
21	Figure 11 and 12: entirely in German, basically snapshots and (at least when I download the pdf), the resolution is quite low. I struggle to see the text (Fig 11 for example) and think it occupies unnecessary space. Instead of these figures an explanatory video could be much more useful.	Agreed, Figures 13 and 14 (current numbering) will be erased since new sections are planned (i.e. validation) and the platform will be illustrated with updated Figures 11 and 12 (current numbering). Either the Figures themselves will be translated or we present or the platform becomes an English lite version, we are thinking about technical solutions for this. A tutorial video is a very nice idea, we will definitely consider embedding it on the website.