

### Response to Interactive comment by Referee #3.

Comments from referee are printed in black. Our responses are printed in red.

General comments:

The manuscript is easy to understand and informative. The set-up and methods are well described. In my opinion, only minor changes are needed to finalize the paper.

Thanks a lot!

First, I tried to download the soil moisture data using the link indicated in the text (<http://doi.org/10.5880/TERENO.2016.003>). I was forwarded to a meta-data page without access to the data.

The meta data page enables the data access via the „Online Resource“ link. We checked the link and it worked properly. We will add a text line to the meta-data page to better inform the user on how to access the data.

Then I tried to download the climate and runoff data using the link indicated in the text (<http://doi.org/10.5880/TERENO.2016.001>). Here I found the data – only in NetCDF format (which I'm not able to read/open with my software).

The NetCDF format is a standard format for data exchange. There is free conversion software available (e.g. <http://www.giss.nasa.gov/tools/panoply/download.html>) to convert the NetCDF data format in other formats (e.g. csv). In addition, users can still use the TERENO data portal to freely download the SoilNet data at [www.tereno.net](http://www.tereno.net).

The second option (online data access) didn't work.

We checked the data access and it worked properly.

Finally, I tried to download the eddy correlation data using the link indicated in the text (<http://doi.org/10.5880/TERENO.2016.002>). Here I was finally able to access the online data access, but data (e.g. latent heat flux) was available only for the period Oct 2011 to May 2012 (not for the entire period announced in the Manuscript May 2011 to Dec 2013).

We will extend the meteorological data to Dec 2013.

In conclusion, I was not able to access the data and to check the quality of the data sets. The data access is not ready yet and needs major improvements.

As explained above, we do not see the need for major improvements. But we will add some text to better inform the user on how to access the data and we will extend the meteorological data to Dec 2013.

General comments:

- Page 4, line 75: In the manuscript, the authors present data that they gathered from 1st May 2011 to 31st December 2013. Why only for this (rather short) period? What happened after 2013 with the measurements? For me as a potential user of the data set the value of the data would be much

larger if data for 2014 and 2015 would also be available. In particular, the exceptional drought of summer/autumn 2015 would be of highest interest to me. Please extend the data set if possible.

Unfortunately, most of the soil moisture sensors used in the wireless sensor network ceased to work after winter 2013/2014. Thus we needed to start reinstallation of the sensor network, which is still in progress (this time with the more robust SMT100 soil moisture sensors). There are already about 20 locations where soil moisture profile measurements have been resumed and data from these stations can be downloaded by the TERENO data portal. However, we refrain from adding this preliminary data to this paper for reasons of consistency.

- Pages 5 to 7: For the description of the different methods (chapters 3.1 to 3.4) the authors use different tenses (imperfect in chapters 3.1, 3.2 and 3.4; present in chapter 3.3). I suggest to use the same tense for all four method descriptions.

We will change the tense in chapter 3.3 accordingly.

- Page 5, line 83: "located in the Eifel" Something is missing here. E.g. "located in the Eifel area" or "located in the Eifel mountain range"?

We will change "located in the Eifel" into "located in the Eifel mountain range".

- Page 10, chapter 3.5: The soil physical data – described in chapter 3.5 and summarized in Table 2 - are an important part of the hydrological data set Rollesbroich. It would be crucial to get access to these data as well. Is it already possible to download these data?

We will provide a link for the data download.

- Page 11 and Fig. 11: Where can the time series of Leaf Area Index be downloaded? (I didn't find access information in the manuscript.)

We will provide a link for the data download.

- Figure 2: In the caption – or in the y-axes label – you should write "Dielectric permittivity".

We will change this accordingly.