Response to Referee #1

Assessing evapotranspiration dynamics across central Europe in the context of land-atmosphere drivers

Comments from Reviewer 1	
Recommendation: Minor Revision The revised manuscript shows clear improvement in both structure and scientific clarity compared to the original submission. The authors have responded to most of the previous concerns appropriately, and the current version is more coherent, with enhanced data presentation and interpretation. However, several minor issues remain that should be addressed before final acceptance. My detailed comments are as follows:	Thank you very much for your positive feedback. We gladly addressed the remaining issues.
1. Overall evaluation: The newly revised manuscript demonstrates substantial improvement over the previous version, particularly in terms of organization, clarity of data presentation, and interpretation of results. The current version is more scientifically rigorous and readable.	Thank you very much. We are glad to hear that our manuscript improved to your satisfaction.
2. Line 26: Please provide the data sources for the two datasets mentioned. Citing the origin of the data is essential for reproducibility and transparency.	Done. We included the data sources for soil moisture and water vapor pressure deficit.
3. Lines 122 and 145: “table S1” should be capitalized as “Table S1” in both instances to conform to academic writing standards	Done. We checked again all references to tables and figures and wrote them all with capital letters.

4. Lines 281–283: This section requires a more specific and nuanced explanation. The current sentence vaguely attributes the underestimation and delayed ET rise to spatial differences and vegetation dependence. I suggest the authors clarify that **remote sensing data loss during frequent precipitation events** could be a contributing factor to the underestimation and lag in ET rise. For instance, at **DE-Hai (broad-leaved forest)** and **DE-Ruw (coniferous forest)**, ICOS ET remains consistently lower than other products and shows a delayed seasonal increase. These discrepancies may be due to **differences in the spatial resolution of the ET products and their sensitivity to vegetation phenology**.	We added a text paragraph (280-284) to explain this in more detail: 'These differences and delayed seasonal increase of remote sensing, modelling, and reanalysis products compared to the ICOS measurements at the DBF and ENF station occur, for one, due to the discrepancies in spatial resolutions (point-scale versus kilometer scale). Second, ICOS field measurements provide a different sensitivity to vegetation phenology than the other remote sensing & modelling products due to measuring directly above the canopy.'
5. Lines 487–488: The statement "Reason for that are… reduced transpiration of agricultural sites throughout the year compared to forested sites" is too general and potentially oversimplified. Please provide a more detailed explanation. For example: *"DE-Rus, classified as an agricultural site located in a non-irrigated zone, shows relatively low vegetation cover (e.g., mean NDVI value if available). This can lead to underestimation of ET in that pixel when using models that rely on vegetation indices. Combined with the site's seasonal vegetation dynamics and lack of irrigation, this explains the lower ET values compared to forested areas with more consistent canopy cover."*	Thank you for the reviewer's advice. We added a more detailed explanation to this statement in lines 489-493, following your example: 'Further, the mostly non-irrigated arable land at station DE-Rus (see Fig. 2) shows relatively low vegetation cover (LAI < 2; normalized difference vegetation index (NDVI) around 0.5 during summer months (not shown)) compared to forested sites (LAI > 5, NDVI around 0.8 during summer months (not shown)), which can lead to an underestimation of ET when using models that rely on vegetation indices (i.e., NDVI, LAI). Combined with the seasonal vegetation dynamics of this station and the lack of irrigation, this explains the lower ET values compared to forested areas with more consistent canopy cover.'