

Author's response

TECHNICAL CORRECTIONS

- The title is very long and not very readable. Please shorten it to something like "A Prototype Citizen and Community Science App for Heavy Rainfall Risk Management in Municipalities in Germany"

Authors response: *We have shortened the title to: "Prototype Citizen and Community Science App for Urban Heavy Rainfall Risk Management in the Ahr Valley, Germany".*

- Line 162 - Reference is incomplete (i.e., see, 2019)

Authors response: *The Reference is not incomplete. The author here is solely See, L.*

- Data are (not data is) (e.g., line 173, line 180, etc.) - Please correct throughout the manuscript.

Authors response: *We have corrected this issue throughout the manuscript.*

- Line 181 - What does 'it' refer to?

Authors response: *We have clarified the sentence.*

- Line 128 - No need to cite the reference (Lemmens et al., 2021) twice.

Authors response: *We have deleted one of the citations.*

- Line 222 - What is a native app? Not everyone may be familiar with this term.

Authors response: *The explanation is in line 222 "which is usually specific to one operating system".*

- Can you provide some numbers for the statements you made in Lines 510-518? For instance, when stating 'many of the responders', could you say how many from the total 38 participants? This would be more objective for the readers.

Authors response: *We have added the specific number here.*

- Line 517 - Since the app test results do not hold statistical significance, I believe you cannot 'confirm' assumptions. Please revise this sentence.

Authors response: *We have revised the sentence.*

- Line 576 - When is the end of the project and how should readers access the implementation guidelines once published?

Authors response: *The project has already been completed and the guidelines have been published in the Git repository (as linked under 'Code Availability'). We have added an advise, that also the guidelines can be found here.*

- Please provide an English translation of the questionnaire used in this study (and include it as a supplementary material).

Authors response: *We have added an English translation to the supplementary material.*

- Your work involves people from outside the authorship team. What entity provided the ethical approval for your work? If this was not obtained, please provide a detailed justification for why it was not sought or granted (in the ethics and/or methods section).

Authors response: *We have included the following statement in the methods section: “The individuals involved in this study were representatives of reference municipalities or members of the university who had provided prior consent and explicitly expressed their willingness to support the research project; given the non-sensitive nature of the data collected and the professional context of participation, formal ethical approval was not considered required.*

- Please add a statement under 'competing interest' on the participation of two authors from Disy Informationssysteme GmbH.

Authors response: *We added the statement: “The authors Julian Janßen and Andreas Abecker are employed by the private company disy Informationssysteme GmbH, Karlsruhe / Germany. We declare that this affiliation has not influenced the research design, data collection, data analysis or the result interpretation in the FloReST project, or the decision to publish the results in this paper. The work was conducted independently in an interdisciplinary academic consortium, following usual standards of good scientific work. The findings have been presented and discussed publicly with the independent pilot users and are reported objectively in this paper. The authors declare no other financial or non-financial competing commercial interests related to this work which would compromise its validity or its publishability.”*