

## ***Interactive comment on “CITYZER Observation Network and Data Delivery System” by Walter Schmidt et al.***

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Received and published: 30 June 2020

The authors thank the reviewers for their positive and very helpful comments. Below are detailed answers to the comments and suggestions of the reviewers.

While the main emphasis of the project was the development of an operational environment for dealing with environmental hazards, the implemented concept can also be exploited for several theoretical research purposes as it allows both the comparison of the forecast data with the actual observations during the forecast period and the simultaneous implementation of alternative models to improve the understanding of the impact of different parameters on the reliability of the used forecast algorithms. We added a corresponding note to the list of already existing realizations of the CITYZER

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ecosystem.

The intention of the concept was the possibility to connect a wide range of environmental sensor types, networks and other data sources to the system. These were intentionally not specified further to avoid the impression that alternative approaches would not be possible. Following the reviewers' suggestions we nevertheless added two examples from different fields: a sensor network monitoring water-related effects in Southern Finland using the same interface standard approach, and the access to publicly or commercially available satellite data, which also could be integrated with the CITYZER ecosystem if needed. The utilization of the CITYZER approach as contributor of services to the SmartCity concept is under preparation, and we thank the reviewer for the idea to point it out in this context.

The low technical quality of the figures mentioned by the reviewer is actually due to the publisher's review process. While high resolution figures are provided in separate files for inclusion into the final publication, the discussion version intentionally only contains low quality place holders to indicate contents and location in the finalized version. Found inconsistencies between the figures and the text were corrected. Especially figure 5 was misleading as the process flow was supposed to go from top to bottom. In the updated version this is strictly enforced also for indicated requests from the application side.

Only the application server uses a data base approach to manage user registration and the localization of relevant available data. As it is kept outside the core system any data base approach could be implemented to serve this purpose. In the demonstration version a Linux based public domain MySQL version was used. The authors added this information to the text.

The consistency of the data sources' time stamps is crucial for meaningful combination of a wide range of input data for a data driven forecast model. As the time compatibility in this case has to be only consistent with the time resolution of the forecast model,

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the requirements for the correctness of the data time information is only in the order of minutes. Nevertheless the control module ingesting new data into the storage has to ensure to exclude or at least flag data with significantly wrong time stamps. A related note was added to the text.

The way different sensors, sensor groups or complete sensor networks are integrated into a CITYZER-compatible system was intentionally left outside this article except for the standard used for the actual data transfer. Nevertheless the system is designed to cope with the addition or removal of sensors while operational provided that the data from newly added sensors contain sufficiently detailed location definitions.

Following the reviewer's suggestion a new final section with conclusions is added

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Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss.,  
<https://doi.org/10.5194/gi-2020-9>, 2020.