

RESPONSES TO MR ABILY'S COMMENTS ON "ASSESSING THE QUALITY OF DIGITAL ELEVATION MODELS OBTAINED FROM MINI-UNMANNED AERIAL VEHICLES FOR OVERLAND FLOW MODELLING IN URBAN AREAS"

- (1) LiDAR data is a different technology compare to photogrammetry. These topographic data gathering technologies do not offer same advantages and limitation for a given application (such as gathering topography in an urban environment). This should be quickly recalled in more detailed way (for contextualization) (e.g. in section 2.2). More over the objective or context for the LiDAR topographic campaign should be emphasis (this dataset might has been gathered for a multipurpose use, which is different to the UVA –Photogrametric campaign dedicated to urban sector DEM elaboration).

Answer: We agree with the reviewer. The point regarding the multiuse purpose is interesting and valid. Additional discussion about the properties (flight parameters, objectives and spatial extent) of the two DEMs will be included in section 2.2 of the revised manuscript.

- (2) UVA, which is the vector for the photogrammetric campaign whereas, if I get it right the LiDAR campaign has been gathered using specific flight as vector (having probably a high flight elevation and different properties). This should be linked with previous comment (regarding objective/spatial extend of the LiDAR campaign).

Answer: see response to point (1).

- (3) Results are not as comparable between the two categories of DEM as presented by authors (important differences are presented in figures 5), or at least, a longer discussion regarding explanation for the differences should be provided. Are vegetation and leaves (terrain physical properties) the only explicative point regarding differences or are vector (UVA and airplane flight) parameters responsible for some of the differences (my intuition is, yes here)?

Answer: we totally agree with the reviewer's comment; terrain physical properties can explain the differences between the two DEMs, but may not be the unique reason to explain the differences. Additional discussion will be added regarding this issue in the revised version of the manuscript.

- (4) Lastly, conclusion regarding this part enhance that advantages of UAV born DEM. It should be interesting to open the conclu/discussion on possibilities of photogrammetric data to be photointerpreted/classified which is an interesting perspective for objective/tailored DEM creation. Limits should be recalled in conclusion as well : practical difficulties regarding legislative framework for UVA flight, limitation regarding spatial extend of gathering campaign with UVA and the data manipulation (possibly "big data" not easy to handle by standard operator/practitioners without decreasing the quality).

Answer: The authors totally agree with the reviewer. UAV imagery can also be used to generate other very interesting data sets for urban drainage modelling applications based on image classification, such as: identification of pervious/ impervious areas; automatic identification and location of sewer inlets and manholes and other man-made features relevant to overland flow (e.g., walls). A paragraph will be added to the *Conclusions* section to discuss these possibilities, including a few additional references.