

Specific comments:

p. 3, line 3: Horizon2020 is EU jargon which is not understandable by non-EU readers.

***We changed with “funded by European Commission.”***

p. 4, line 7: evidence that the processing chain for reactive gas and aerosol data is operational should be provided.

***A web site devoted to inspection of operational products is now available at the web address [www.nextdata.isac.bo.cnr.it](http://www.nextdata.isac.bo.cnr.it). In the revised manuscript, we added a paragraph (Section 3) describing this web site.***

p. 5, line 32: “when the molecules to be quantified are scrubbed from the gas mixture” is probably what the authors mean.

***Exactly, we corrected accordingly.***

p. 7, line 25: it might be useful to specify that the titration rate (“about 80%”) does not affect the determination of Sc.

***OK***

p. 8, line 24: why aren’t data completeness < 90, 75 and 66% also flagged accordingly?

***At the current stage, we only decided to flag data with completeness below 50%. Since numflags are provided also for data completeness below 66, 75 and 90%, this implementation can certainly be an added value in the future updates of the system.***

p. 9, line 8: what happens if more than 3 different numflags are encountered within a single hour? Are there prioritization rules?

***The one reported in the text is just an example: if more than 3 different valid numflags are encountered within the same hour, all of them must be present to form the hourly numflag. The total number of flags that can be reported is one option that can be changed by the user in the three functions that we developed. There are no prioritization rules, but, at the current stage, the reported numflags are sorted in ascending order (e.g., 0.147410640).***

p. 12, line 14: it might be specified “atmospheric background observatory network”.

***Thanks for the suggestion. We implemented it, in the revised manuscript.***

p. 12, line 19: even real time submission requires properly data formatting.

***A sentence has been added in this regard: “Moreover, the products (both formatted data files and standardized plots) can be used to facilitate the activation of near-real time data delivery, as already implemented for CMN.”***

p. 13, line 2: station operator judgment can still be needed to flag e.g. special events like local contamination, which is not always easy to define.

***Yes, we agree with the Reviewer on this point. Local contamination events can be selected (and properly flagged), e.g., by analyzing all of the events reported in a station logbook, or by performing a cross-analysis involving several simultaneous measurements. However, at the current stage of the system these automatic checks/comparisons are not implemented, and could certainly represent a possible future improvement for the routines. A specific comment was added on Section 4: “Our effort is expected to improve data quality, to accelerate the process of data submission to WMO/GAW WDCs (in this perspective, we will encourage the adoption of these***

*procedures also by other measurement stations, not directly related to NextData) and to make the data flagging more “objective”, which means that it is based on a set of well-defined selection criteria and not uniquely related to the subjective judgment of station operators. Indeed, station operator judgment can still be needed to flag data in case of special events such as, e.g., local contamination, which is not always easy to identify by automatic tools (as showed in Sect. 2.3.1).”*