For research article “Provenance in the context of metrological traceability”

Response to Reviewer 3 Comments

1. Summary

Thank you very much for taking the time to review this manuscript. Please find the detailed responses below and the corresponding revisions/corrections highlighted in the re-submitted files. Your comments were very well received and have resulted in an improved manuscript. I am encouraged by the positive and constructive criticism received that the merits publication and may be considered by the metrology community as a potential area of further research.

Section 4.2 was significantly updated to address comments and improve the manuscript. A brief conclusion was also added. The discussion section was changed to address your specific comment. For further details please see responses below.

2. Questions for General Evaluation	**Reviewer’s Evaluation**	**Response and Revisions**
Does the introduction provide sufficient background and include all relevant references?	Yes	
Are all the cited references relevant to the research?	Yes	
Is the research design appropriate?	Yes	
Are the methods adequately described?	Yes	
Are the results clearly presented?	Yes	
Are the conclusions supported by the results?	Yes	

3. Point-by-point response to Comments and Suggestions for Authors

Comments 1: There are many other models and approaches used to implement traceability. I would like to see a brief analysis from the author of the advantages and limitations compared to the PROV model used. For example, I think it is necessary to compare it with approaches for example: OPM, MTConnect, D-SI or CIDOC-CRM to traceability tasks, modelling or data exchange.

Response 1: Thank you for pointing this out. I agree with this comment. Please review the

discussion section which considers some of the suggested references and describes their relation to PROV. While a comprehensive review has not been done, I have addressed the comment to some extent in the discussion section. Specifically, I draw attention to some of the models suggested above as well as others that could be used in conjunction with PROV.

4. Additional clarifications

Section 4.2 has significant number of changes and additions to address comments, improve the analysis, and provide clarification with examples. Figure 3 was added to reflect the analysis, with corrections to Appendix A the results in the figure 3. In addition, additional references were added resulting in updating the citations throughout the text. Several of the additional references were included in the discussion to address this comment, and a brief conclusion was added.

For review article

Response to Reviewer X Comments

1. Summary

Thank you very much for taking the time to review this manuscript. Please find the detailed responses below and the corresponding revisions/corrections highlighted/in track changes in the re-submitted files. *[This is only a recommended summary. Please feel free to adjust it. We do suggest maintaining a neutral tone and thanking the reviewers for their contribution although the comments may be negative or off-target. If you disagree with the reviewer's comments please include any concerns you may have in the letter to the Academic Editor.]*

2. Questions for General Evaluation	**Reviewer's Evaluation**	**Response and Revisions**
Is the work a significant contribution to the field?		*[Please give your response if necessary. Or you can also give your corresponding response in the point-by-point response letter. The same as below]*
Is the work well organized and comprehensively described?		
Is the work scientifically sound and not misleading?		
Are there appropriate and adequate references to related and previous work?		
Is the English used correct and readable?		

3. Point-by-point response to Comments and Suggestions for Authors

Comments 1: *[Paste the full reviewer comment here.]*

Response 1: *[Type your response here and mark your revisions in red]* Thank you for pointing this out. I/We agree with this comment. Therefore, I/we have….*[Explain what change you have made. Mention exactly where in the revised manuscript this change can be found – page number, paragraph, and line.]*

"[updated text in the manuscript if necessary]"

Comments 2: *[Paste the full reviewer comment here.]*

Response 2: Agree. I/We have, accordingly, done/revised/changed/modified…..to emphasize this point. *Discuss the changes made, providing the necessary explanation/clarification. Mention exactly where in the revised manuscript this change can be found – page number, paragraph, and line.]*

"[updated text in the manuscript if necessary]"

4. Response to Comments on the Quality of English Language

Point 1:

Response 1: (in red)

5. Additional clarifications

[Here, mention any other clarifications you would like to provide to the journal editor/reviewer.]