

**Information Sharing e-pre Meeting on Draft UNECE Guidance Document on
Integrated Sustainable Nitrogen Management**

Tuesday 3rd November, 15.00 – 17.00 CET/14.00 – 16.00 GMT (e-meeting via Zoom)

Meeting Report

Summary

An electronic pre-meeting was hosted by the Task Force on Reactive Nitrogen (TFRN) office in partnership with the International Nitrogen Management System (INMS) for members of the Working Group on Strategies and Review (WGSR) ahead of the forthcoming 58th Session of the WGSR, with the purpose of sharing information on the draft UNECE Guidance Document on Integrated Sustainable Nitrogen Management. The e-pre meeting allowed for clarification of several points in the draft document, which have been incorporated into documents for WGSR-58 under “Item 3: Progress in the implementation of the 2020-2021 workplan”. The present note provides a detailed report of the e-pre meeting.

Discussion Chair: Professor Mark Sutton, Co-Chair of the Task Force on Reactive Nitrogen, UK Centre for Ecology & Hydrology (UKCEH)

E-conference Facilitators: Nicole Read, Martha Schlegel and Clare Howard (UKCEH)

Recording of minutes: Kate Mason and Martha Schlegel (UKCEH)

Participants (list based on registration for the meeting)

Title	Forename	Surname	Organisation/Institution	Country
Ms.	Rozana	Anastasi	National Environmental Agency	Albania
Dr.	Indrit	Kulla	Ministry of Tourism and Environment	Albania
Ms.	Katharina	Isepp	BMK	Austria
Ms.	Susanne	Lindahl	European Commission	Belgium
ir.	Sylviane	Thomas	Walloon Air & Climate Agency	Belgium
Dr.	Shabtai	Bittman	Agriculture Canada and Agri-Food Canada	Canada
Ms.	Dominique	Pritula	Environment and Climate Change Canada	Canada
Prof	Tommy	Dalgaard	Aarhus University and TFRN Co-Chair	Denmark
Ms.	Heidi	Ravnborg	Danish Ministry of Environment and Food	Denmark
Ms.	Marina	Kiisler	Estonian Ministry of the Environment	Estonia
Mr.	Jaakko	Kuisma	Ministry of the Environment	Finland
Dr.	Lionel	Launois	French Ministry of Agriculture	France

Ms.	Raia	Massad	INRAE	France
Ms.	Pascale	Vizy	French Ministry of Ecological and Solidary Transition	France
Mr.	Noe	Megrelishvili	Ministry of Environmental Protection and Agriculture	Georgia
Prof	Barbara	Amon	Leibniz-Institut für Agrartechnik und Bioökonomie	Germany
Prof	Klaus	Butterbach-Bahl	Karlsruhe Institute of Technology (KIT)	Germany
Dr.	Till	Spranger	Federal Environment Ministry	Germany
Dr.	Stefanie	Wolter	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety,	Germany
Dr.	Cristina	Leonardi	Ministry for the Environment	Italy
Mr.	Tiziano	Pignatelli	ENEA	Italy
Dr.	Giovanni	Vialetto	ENEA	Italy
Ms.	Melissa	Caruana	Environment and Resources Authority	Malta
Mr.	Marc' Andrea	Cassar	Environment & Resources Authority	Malta
Ms.	Aisling	Cunningham	Environment and Resources Authority Malta	Malta
Ms.	Elena	Mosanu	Institute of Ecology and Geography	Moldova
Prof	Oene	Oenema	Wageningen University & Research	Netherlands
Prof	Cláudia	Cordovil	Instituto Superior de Agronomia and TFRN Co-Chair	Portugal
Prof	Francisco	Ferreira	New University of Lisbon	Portugal
Ms.	Filipa	Marques	Portuguese Environment Agency	Portugal
Mgr.	Miroslav	Daras	Ministry of Environment of the Slovak Republic	Slovakia
Mr.	Levente	Molnár	Ministry of Environment of the Slovak Republic	Slovakia
Ms.	Maria Jose	Alonso	Spanish Ministry for Ecological Transition and Demographic Challenge	Spain
Sra.	Cristina	Riestra	Ministerios para la transición ecológica t reto demográfico	Spain
Ms.	Bibiana María	Rodríguez Sendón	Ministry of Agriculture, Fisheries and Food	Spain
Dr.	Juan José	Ruiz García	Ministerio de agricultura, pesca y alimentación	Spain
Dr.	Odón	Sobrino	Ministerio agricultura pesca y alimentación	Spain
Ms.	Anna	Engleryd	Swedish EPA	Sweden
Ms.	Petra	Hagström	Swedish EPA	Sweden
Dr.	Salar	Valinia	Swedish Environmental Protection Agency	Sweden
Ms.	Albena	Karadjova	UNECE	Switzerland
Mr.	Reto	Meier	Swiss Federal Office for the Environment	Switzerland
Dr.	Harald	Menzi	Swiss Federal Office for the Environment	Switzerland
Ms.	Alina	Novikova	UNECE	Switzerland
Ms.	Inna	Soltys	Odesa National I. I. Mechnikov University	Ukraine
Dr.	Paola	Cassanelli	Defra	United Kingdom
Dr.	Clare	Howard	UK Centre for Ecology and Hydrology	United Kingdom
Ms.	Kate	Mason	UK Centre for Ecology and Hydrology	United Kingdom
Ms.	Nicole	Read	UK Centre for Ecology and Hydrology	United Kingdom
Ms.	Martha	Schlegel	UK Centre for Ecology and Hydrology	United Kingdom

Prof	Mark	Sutton	UK Centre for Ecology and Hydrology and TFRN Co-Chair	United Kingdom
Ms.	Madison	Warwick	UK Centre for Ecology and Hydrology	United Kingdom
Dr.	Richard	Haeuber	US Environmental Protection Agency	USA
Ms.	Liz	Nichols	U.S. Department of State	USA
Dr.	Robert	Pinder	US Environmental Protection Agency	USA
Ms.	Kimber	Scavo	US EPA	USA

Agenda

1. Welcome (Mark Sutton)
2. Report by TFRN Chairs on finalising the Guidance Document (Mark Sutton), including summary of:
 - a. Earlier feedback from WGSR, and
 - b. Recommendations of TFRN Chairs for finalisation, incorporating any final advice from stakeholders
3. Comments received on the Draft Guidance Document (Mark Sutton)
4. Discussion and exchange of views (all)
5. Summary and close of meeting (Mark Sutton)

Main points and actions

1. Welcome (Mark Sutton, UKCEH & TFRN Co-Chair)

Mark Sutton welcomed the participants and outlined the agenda.

Purpose of Meeting: to inform participants of changes made to the Guidance Document on Integrated Sustainable Nitrogen Management and to discuss further comments.

1.1 Presentation on the background to the Guidance Document on Integrated Sustainable Nitrogen Management and the Process (Mark Sutton)

Mark Sutton gave an over-view presentation. Key points from the presentation are as follows:

- 1.1.1 **Mark Sutton** outlined the background to the development of the Guidance Document, including the UNECE Gothenburg Protocol, ‘five priorities for ammonia’ and the Ammonia Guidance Document. The Guidance Document on Integrated Sustainable Nitrogen Management follows on from these to look at the wider nitrogen cycle and the opportunities for mitigation of all the main nitrogen forms. It recognises the need to identify the principles that should be born in mind in order to avoid pollution swapping, and the performance of measures.
- 1.1.2 Two workshops to draft the Guidance Document were held in Brussels (2016 & 2019) and included substantial stakeholder engagement. Review and

agreement of the updated document by TFRN members took place in March/April 2020 and was followed by the WGSR e-review (May 2020).

- 1.1.3 TFRN produced a document outlining how the comments from the WGSR review were addressed, and submitted the updated Guidance Document to UNECE for translation in June 2020. In October 2020 **Mark Sutton** gave a presentation to EU stakeholders at the EU Civil Dialogue Group (CDG) meeting, inviting members to review the document and provide comments. No comments from the CDG group were received as part of that review.
- 1.1.4 The definitions of the three UNECE categories assigned to measures were established in the first version of the Ammonia Guidance Document. For the purpose of the Nitrogen Guidance Document the authors have provided a colour system for each nitrogen form (red – Category 1, yellow – Category 2, green – Category 1).

Swiss colleagues asked why measures that are always Category 3 have been included in the Guidance Document. The Task Force thought it was still important to give their transparent comments on these measures. Some measures sit on the borderline of Categories 2 and 3 depending on the extent of the available evidence. An indication has been given when there needs to be further development.
- 1.1.5 TFRN invited comments as part of the present meeting but understands that some participants will need time to co-ordinate their viewpoints. TFRN undertook to respond to and incorporate comments within two weeks and will provide an updated Track Changes version for the Secretariat to mount on the UNECE website. Another e-pre meeting can be arranged if needed.
- 1.1.6 The goal is that there should be smooth agreement of the Guidance Document text, leading to its adoption by the Executive Body on the 18th December 2020.

1.2 Comments from Participants

Following on from the presentation Mark Sutton opened the floor to participants to raise comments and clarification queries related to the general process. No comments were received by participants verbally but one point was raised within the meeting chat forum, as follows:

- 1.2.1 **Tiziano Pignatelli (ENEA, Italy)** pointed out that there was a mistake in one of the slides, and that according to **Alina Novikova (UNECE, Switzerland)** the schedule for WGSR-58 is three two hour sessions on the 14th, 15th and 17th December, with EB-40 being a 2 hour session on the 18th December.

2. Report by TFRN Chairs on finalising the Guidance Document (Mark Sutton, UKCEH & TFRN Co-Chair)

Clare Howard (UKCEH & TFRN Secretariat) shared the draft Guidance Document on screen for all participants to see. **Mark Sutton** then invited participants to raise questions and comments as he went through the draft Guidance Document page by page, highlighting where track changes have been made since the previous version (of June 2020) and the reasons for the changes.

2.1 Review of Chapter I (Overview for policymakers)

Mark Sutton went through the chapter page by page, highlighting editorial changes and inviting comments from the meeting participants. The main points and comments were as follows:

2.1.1 **Dominique Pritula (Environment and Climate Change Canada, CANADA)** gave positive feedback on the document that outlined how comments from the WGSR review in May had been addressed by the chapter authors. **Ms Pritula** commented that the document was very helpful, the reasons for changes were explained well and she was in agreement with them.

2.1.2 **Dominique Pritula (Environment and Climate Change Canada, CANADA)** pointed out that within Paragraph 7 (page 9) there are references to a number of articles from the Gothenburg Protocol and commented that it would be helpful if more detail could be added (for example, by adding key words). This would make it easier for the reader to make the link to the Gothenburg Protocol without having to keep going back to it.

ACTION: Mark Sutton replied that this would be easy to implement and agreed that it made sense to include a clarification on what is in each of these Gothenburg Protocol articles by way of a brief descriptor.

2.1.3 **Petra Hagström (Swedish EPA, SWEDEN)** commented (*within the meeting chat forum*) on an error in paragraph 5 (4th line), pointing out that The Air Convention was signed in 1979, not 1999.

ACTION: Mark Sutton agreed that the sentence should be made clearer in terms of the date of signing the Protocol (1999) and the date of signing the Convention (1979).

2.1.4 **Mark Sutton** highlighted a recent discussion with **Swiss colleagues** on why the Guidance Document includes Category 3 measures and explained how the comments from **Switzerland** have been addressed. In response to the comments from **Switzerland** a clarification statement has been added at the end of paragraph 17 where the categories are being described.

Reto Meier (Swiss Federal Office for the Environment SWITZERLAND) thanked the authors and the TFRN Co-Chairs for reacting to the **Swiss** comments and integrating the new clarification at this precise location

[paragraph 17] in the document. It clarifies why Category 3 measures are mentioned in the detailed form that they are, and why it is important that this is done.

- 2.1.5 **Petra Hagström (Swedish EPA, SWEDEN,)** pointed out a typing error in paragraph 23, in the sentence starting “The core of the present Guidance Document consists of”. A ‘the’ should be added and the word ‘report’ deleted.

ACTION: This will be corrected.

- 2.1.6 **Mark Sutton** highlighted a few minor edits regarding formatting issues and reference standardisation.

2.2 Review of Chapter II (Technical Overview)

Mark Sutton explained that this chapter describes the principles and measures in summary form – designed to be as short as possible while giving the essential information. Detailed information is given in the main chapters.

There had been a request to put the magnitude of effects into this chapter too, but for simplicity it was decided not to do so, as it is more complicated to explain the magnitude of effect in a concise way.

Mark Sutton went through the chapter page by page, highlighting editorial changes, as follows:

- 2.2.1 Paragraph 36, bullet point (d): Text has been added here just for sentence clarification.
- 2.2.2 Paragraph 37, Figure II.1: This figure has been reformatted to remove repetition of the figure title.
- 2.2.3 Paragraph 48: Minor change to ‘whole farm-level’ for consistency with Chapter III.
- 2.2.4 Paragraph 49: Minor change for clarification.
- 2.2.5 Tables II.1-II.3: The authors have requested that the table’s explanatory note (currently below the table) should be moved to the top to make it clearer for readers.
- 2.2.6 Table II. 1 Manure Measure 2 diagram: This has been changed in response to comments from **Switzerland** pointing out that if you had covered storage with a natural crust it would not be as effective as a solid cover and that stirring should be minimized. The authors agreed with the Swiss comments and have changed the diagram for this measure to now rate ammonia as Category 1-2.

Reto Meier (Swiss Federal Office for the Environment SWITZERLAND)

thanked the authors for making this change and commented that this addition to the text is needed as the importance of minimizing stirring is explicitly mentioned in the Ammonia Guidance Document.

- 2.2.7 The standardisation of superscript minus signs on nitrate will be addressed throughout the document.
- 2.2.8 Table II.1 Manure Measure 11: A slight change to the heading has been made to ensure consistency with the heading in Chapter IV.
- 2.2.9 Table II.1 Nutrient Recovery Measures 1 and 2 diagrams: These have been revised to reflect comments from **Switzerland** that led to a discussion on whether the categories indicated here should be Category 2 or 3. For Nutrient Recovery Measure 1 the overall nitrogen loss and NO_3^- have both been amended to Category 2 — there is potential but further research and demonstration is needed. For Nutrient Recovery Measure 2 the overall nitrogen loss, NH_3 and NO_x have all been amended to category 2-3 with a clarification that if the nitrogen is recovered then it has potential to be category 2 but if it is not being recovered and is being wasted then it is category 3.

Reto Meier (Swiss Federal Office for the Environment SWITZERLAND)

thanked the authors for these changes and for clarifying (in the previous chapter) why category 3 measures are included.

- 2.2.10 Table II.1: Nutrient Recovery Measure 4: As in the case of Nutrient Measures 1 and 2 the diagrams have been redone to reflect changes made to the assigned Categories after discussion following on from the **Swiss** comments. Overall nitrogen loss, NH_3 and NO_3^- have all been amended to category 2.
- 2.2.11 Table II.2 Field Measures 2 and 7: The English wording has been slightly reformulated to make the sentence read better (no change of meaning).
- 2.2.12 Table II.4: Changes to this table are simply formatting-related in terms of correcting the table column headings, deleting the top few words to avoid complication and moving the subheading (which had incorrectly been put into the table headings so was repeating across on every page) to its correct position in the body of the table. Rows have also been aligned.
- 2.2.13 Paragraph 74: Cross-references have been corrected to the new UNECE numbering.
- 2.2.14 Paragraph 84: **Mark Sutton** noted that 'and others' is used by UNECE rather than 'et.al.'

- 2.2.15 Paragraph 98: The sentence has been reformatted to move the first part of the paragraph ('N is double-mobile') to the end, as it directly relates to the bullet points below the paragraph. There is no change of meaning, it has been done simply to accommodate the UNECE formatting structure.

2.3 Review of Chapter III (Principles of integrated sustainable nitrogen management)

Mark Sutton went through the chapter page by page, inviting comments from the participants and highlighting editorial changes, as follows:

- 2.3.1 Paragraph 141: The comments to the Editors here are just formatting points requesting the further indentation of bullet points for second-level bullets.

- 2.3.2 The references will be standardised in style throughout the document.

No comments were received from the participants on this chapter.

2.4 Review of Chapter IV (Housed livestock, manure storage and manure processing)

Mark Sutton went through the chapter page by page, inviting comments from the participants and highlighting editorial changes, as follows:

- 2.4.1 Paragraph 147: Part of the equation here has been highlighted here to show that it is important that that it is superscript to show that it is 10 'to the power of'.

- 2.4.2 Housing Measures 6 (paragraph 190) and 13 (paragraph 205): Within the tables IV.11 and IV.18 for these two measures the formatting of the category numbers has been changed from e.g. 2/3 to 2-3 for clarification.

- 2.4.3 Paragraph 222: The sentence has been split to make it more readable, there no change in meaning.

- 2.4.4 Manure Measure 2, paragraph 237: The text has been changed here and the table IV.26 categories changed to reflect the comments from **Switzerland** and indicate that stirring should be minimized.

- 2.4.5 Nutrient Recovery Measure 2 (combustion, gasification or pyrolysis) paragraph 259: Text has been changed and added here in response to the comments from **Switzerland**. If there is no recapture of nitrogen then it is rated as Category 3. Systems currently under development are rated as Category 2. This is reflected in the table IV.38 for this measure.

- 2.4.6 Paragraph 263: Heading has been changed just for consistency, to match the heading Chapter II Tech summary.

- 2.4.7 Paragraph 276, bullet point (d): The wording has been changed slightly to improve the English and there is no change of meaning.
- 2.4.8 Further formatting is needed to the references to standardise them across the whole document.

No comments on this chapter were received from the participants.

2.5 Review of Chapter V (Field application of organic and inorganic fertilizers)

Mark Sutton went through the chapter page by page, inviting comments from the participants and highlighting editorial changes, as follows:

- 2.5.1 Paragraphs 279 and 280: Minor changes have been made to spellings and the English wording. There is no change in meaning.
- 2.5.2 Paragraph 283: A change has been made to update the cross reference. The 'Further Guidance' [currently appearing as section D under Chapter VII] relates to the whole document, so it is proposed to renumber this as Appendix I.
- 2.5.3 Footnotes: In each of the main chapters, reference is made to the UNECE categories and magnitude of effects outlined in Chapter I. The footnotes throughout the document have been corrected to refer readers to paragraphs 16-20 rather than just paragraph 16.
- 2.5.4 Field Measure 8, paragraph 331: A change has been made here to the measure heading for consistency with the title in Chapter II (Overview for Policymakers).
- 2.5.5 Field Measure 13, paragraph 349: Table V.13 needs be re-formatted in the same UNECE style as all the other tables.
- 2.5.6 Paragraph 381: The cross-reference to another section has been updated to make it clear that this information can now be found in Appendix I.
- 2.5.7 Further formatting is needed to the references to standardise them across the whole document.

No comments were received from the participants on this chapter.

2.6 Review of Chapter VI (Land-use and landscape management)

Mark Sutton went through the chapter page by page, highlighting editorial changes, as follows:

- 2.6.1 Figure VI.I: As part of the UNECE formatting the note to this figure has been made shorter and some of the text of the note has been moved into paragraph 397. There is no change in meaning and the changes to the text have simply been made for clarification.
- 2.6.2 Landscape Measure 2, paragraphs 423-425: There was some inconsistency regarding the use of the terms catch and cover crops (cover crops are sometimes called catch crops). Changes in wording to the measure heading and text have therefore been made to ensure consistency with Chapter II (Technical overview). There is no change in meaning.
- 2.6.3 Landscape Measure 3, paragraph 426: Changes have been made to this measure heading for consistency with Chapter II (Technical overview) to include reference to intercropping where legumes are placed within a canopy of another crop.
- 2.6.4 Landscape Measure 7, measure heading and paragraph 433: Changes to the heading of this measure (from 'nitrate removal' to 'denitrification') have been made for consistency with Chapter II (Technical Overview).

Tommy Dalgaard (Aarhus University, Denmark & TFRN Co-Chair) and **Klaus Butterbach-Bahl (Karlsruhe Institute of Technology (KIT))**, the lead authors of Chapter VI, pointed out that there are other forces that remove nitrate and that nitrate can be fixed in other ways, e.g., in carbon. **Tommy Dalgaard** and **Klaus Butterbach-Bahl** therefore considered that the original measure heading 'nitrate removal' was correct and should not be replaced with 'denitrification'.

Mark Sutton pointed out that if the title was changed back to 'nitrate removal' in this chapter it would also have to be changed in Chapter II (Technical Overview) for consistency.

ACTION: It was agreed that this measure title would be changed back to 'nitrate removal'.

- 2.6.5 Table VI.17 (measures summary table): Changes in the measures headings for Landscape Measures 2 and 3 have been made for consistency with the headings in Chapter II.
- 2.6.6 Table VI.17 (measures summary table) Landscape Measure 7: It had been pointed out that there was no accompanying paragraph next to that measure in the table and it would be appropriate to have one, so a short statement has been added for clarification. The title of this measure will also be changed back to 'promote nitrate removal' as discussed under **minute point 2.6.4** above.
- 2.6.7 Further formatting is needed to the references to standardise them across the whole document.

No further comments were received on this chapter. Mark thanked **Tommy and Klaus (lead authors of this chapter)** for their inputs.

2.7 Review of Chapter VII (Development of packages of measures for integrated sustainable nitrogen management)

Mark Sutton explained that Chapter VII is a short chapter on how to put together a group of measures towards a coherent approach and includes three case study examples (intensive dairy farming, organic dairy farming and tomato farming), illustrating the principles to use for a coherent package of measures.

Mark Sutton went through the chapter page by page, highlighting editorial changes, as follows:

- 2.7.1 Paragraph number 474 bullet (c): Cross-reference correction.
- 2.7.2 Further formatting is needed to the references to standardise them across the whole document.

No comments were received from the participants on this chapter.

2.8 Review of Appendices

Mark Sutton went through the Appendices, highlighting the following points:

- 2.8.1 Appendix I provides links to further information and guidance. It had formerly in the UNECE headings/contents it been labelled as section D of Chapter VII but it relates to the whole Guidance Document rather than just Chapter VII. It has now been renumbered as Appendix I to reflect that.
- 2.8.2 Similarly, the Glossary of Terms had formerly been numbered as section E of Chapter but it relates to the whole Guidance Document. It has now been renumbered as Appendix II to reflect that.

No comments were received from the participants on the appendices.

3. Comments received on the Draft Guidance Document (Mark Sutton, UKCEH & TFRN Co-Chair)

This was covered under item 2 of the agenda.

4. Discussion and Exchange of views (led by Mark Sutton, UKCEH & TFRN Co-Chair)

Mark Sutton thanked participants for their comments on the individual chapters and **Clare Howard** for scrolling through the document and making corrections direct into the document on screen.

4.1 Discussion and further comments

The discussion was then opened up to the meeting participants for any further general comments on the Guidance Document and the process. Main comments were as follows:

- 4.1.1 **Alina Novikova (UNECE, Switzerland)** informed participants that the French and Russian versions of the Guidance Document would be available shortly.
- 4.1.2 **Alina Novikova (UNECE, Switzerland)** asked when exactly TFRN expected to be in a position to send the final version track changes document to UNECE so that it can be posted as an informal document on the UNECE website for EB-40 and WGSR-58, given that another round of comments was expected. Alina pointed out that UNECE colleagues responsible for editing & formatting would need time to go through the proposed changes to see which changes could be accommodated and which could not.

Mark Sutton replied that as there were just a small number of changes requested during this meeting so far, that unless people raised further questions in the next few minutes it should be possible to send UNECE the revised track changes document within the next couple of days.

ACTION: TFRN to send updated track changes document to UNECE by the end of the week.

- 4.1.3 **Mark Sutton** noted a **comment (within the meeting chat forum) from Anna Engleryd (Swedish EPA, SWEDEN & EB Chair)** welcoming the action to review the document, noting that there were very few comments, which provided a good prospect to adopt the document in December 2020.
- 4.1.4 **Odón Sobrino (Ministerio agricultura pesca y alimentación, Spain)** commented (*within the meeting chat forum*) that the translation of the Guidance Document into other languages (e.g., Spanish) should be considered.

Mark Sutton replied that he realises that although Spanish is not one of the three official languages of the UNECE it is of course one of the wider UN languages. TFRN would very much welcome the Guidance Document's translation into Spanish and other languages, provided that resources were made available to make that happen.

- 4.1.5 **Mark Sutton** explained that the current step is to get the Guidance Document adopted at the Executive Body meeting (18th December). Once adopted, the intention is to publish the Document with author names included to give full credit for the great work and valuable contributions of time. In order to make the Guidance Document more accessible photographs will be added to illustrate measures and a short version will also be produced, consisting of the Overview for Policymakers and the Technical Overview.

5. Summary and closing of the meeting (Mark Sutton, UKCEH & TFRN Co-Chair)

Mark Sutton thanked the meeting participants for their contributions and outlined the next steps.

5.1 Next Steps

- Changes requested in this meeting will be checked and actioned quickly and as the number of changes is small it will be possible to send the updated track-changes document to UNECE Secretariat earlier than planned.
- UNECE are finalising the translation of the Guidance Documents into the UNECE languages of French and Russian.
- In terms of additional comments, it is acknowledged that some participants have not yet finished their co-ordination. If a large number of comments are received after co-ordination then TFRN is ready to hold another e-discussion meeting if needed.
- As far as possible TFRN would like to receive everyone's views before the WGSR-58 meeting in December. Viewpoints and comments can of course be made within WGSR-58 but time will be limited in the meeting e-format, so the more that can be done in advance of the meeting the better for the process.

Mark Sutton closed the meeting by thanking the experts and chapter leads for their inputs and good work, and the team at UKCEH for meeting organisation.