

Subject: Public Comment on Draft Guidance for Application of UNFC for Mineral and Anthropogenic Resources in Europe from Alistair Jones, Earth Science and Engineering, Imperial College London

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Contents and structure

Much of the contents is useful – some as an overview for those who do not need to know the details on UNFC and some for practitioners. It would be helpful to make the distinction a bit clearer between overview and detail, so as to guide the reader.

I think it best to omit Annex I UNFC-Europe Mineral and Anthropogenic Resource Specifications. This is for two reasons:

- These are not guidance but specifications. If they were to be published then they should be in a separate document.
- Annex I adds little to existing specifications and having multiple UNFC specifications will be potentially unhelpful. The more versions there are, the harder it will be to keep them up to date. Mineral and Anthropogenic Specifications have already been published as UNECE documents. The minerals document is up to date whilst the anthropogenic document is being updated to be consistent with UNFC 2019. Annex I is incomplete as it contains only a subset of the material which is in these documents. It is also a bit out of date as some of the specifications follow UNFC 2009 and are not required in UNFC 2019. Similarly, some terminology is out of date. There does not seem to be new, critical contents additional to the existing specifications.

I understand that one motivation for the contents of the document is to provide everything required in one place. However, as suggested above, it seems best not to duplicate specifications, and it may also be best to issue a separate full bridging document to INSPIRE (see comments below). However, it could be helpful to provide, in this guidance document, a guide for making robust classifications. This could include

- pointers to key documents,
- advice on the considerations, checks and qc steps in making a robust classification such as
 - guidance that where bridging documents or decision trees have been used to facilitate classification, the results should be checked against the definitions in the E/F/G categorization tables)
 - A checklist which would help the user to that all the relevant specifications have been addressed e.g. effective date, reference point etc. I have found such a checklist quite helpful in qc of classifications
 - etc

This guidance could initially be a draft for testing, and then consolidated over time.

Some comments on each section are provided below.

Introduction, UNFC for Europe Guidance, Conclusions and Recommendations

The opening sections: *Introduction, UNFC for Europe Guidance, Conclusions and Recommendations* provide a helpful overview e.g. for decision makers who do not need to know the details on UNFC.

Terms and Definitions

The section *UNFC for Europe Guidance - Terms and Definitions for Mineral and Anthropogenic Resources* does not seem appropriate for an overview, although a version of Fig 2, without the Inspire and TRL columns, would probably be useful to include in the overview. This section on Terms and Definitions provides some, but not all, definitions which are already in the UNECE Minerals Specifications and will likely be in the UNECE Anthropogenic Specifications which are currently being updated. So they seem redundant (see also my comments, above, suggesting omission of the Specifications from this document).

The other aspect of the Terms and Definitions section is a mapping from INSPIRE and TRL. The INSPIRE mapping is a partial version of a full bridging document e.g. it does not describe INSPIRE. It does not allow checking of the mapping without detailed knowledge of both UNFC and INSPIRE. It would be best to make this bridging more complete and make a separate section or publish as a separate bridging document (alongside other UNFC bridging documents) which could then be referenced. For comments on TRL mapping, see below.

Annex II Sectoral Guidance

Annex II Sectoral Guidance looks useful as a working document, but because much of it is interpretation, and I don't think has been widely discussed or tested, it seems wise to trial this as draft guidance, check it works and is sufficiently clear and complete, and then publish as a final version at a later stage.

Sub-categories of E2 do not yet exist (used in Table 7, 8). So this is inconsistent with UNFC 2019. E2 sub-categories are also not defined in the specifications in Annex I. Are these sub-categories definitely required? If so then it should be made clear that this is an extension of UNFC 2019 and clear definitions provided (see definitions of other categories in UNFC 2109).

The guidance on the mapping of Technology Readiness Levels to F categories seems misleading since it makes no mention of the status of commitment to project funding. This should be clarified.

Glossary

This should be checked for consistency and redundancy between both the recently drafted common glossary and the existing minerals and anthropogenic specifications.

Additional Corrections

There are a few inconsistencies in terminology between this document and UNFC 2019. (Most/all of these are uses of older terminology from UNFC 2009. There are also some places where the language could be clearer. Comments are provided in the attached annotated version of the document.

Alistair Jones