Comments to Guidance for the Application of the United Nations Framework Classification for Resources for Mineral and Anthropogenic Resources in Europe

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Many thanks for the opportunity to comment on this extensive guidance for the application of the UNFC for mineral and anthropogenic resources in Europe.

Based on what is written below, I recommend reviewing the document in detail to ensure coherence with the documents defining the UNFC (UNFC 2019, specifications and glossary).

While the current document is designed to be a guidance for Europe, the document preserves the global applicability of the UNFC as industry, supply chains, product chains and finance will impact activities. These functions are in principle global.

A brief paragraph on quality assurance and control may be constructive. This will naturally follow quality assurance and control requirements legislated or recommended for large engineering projects of the kind addressed.

Annex II points attention to a wide spectrum of concerns that may impact classification. A less prescriptive approach would be safer and should be evaluated during the review. In this approach preparers would simply be entering categories according to observable facts and decisions. If required, the concerns leading to the choice of categories may be explained in notes to a report containing the inventories, possibly standardising the information by pointing at defined recurring conditions observed as suggested by the controlling factos. A check list for preparers containing observations that determine the category to choose may be useful.

When reviewing the guidance, efforts to shorten the document should be considered, by linking to the UNFC defining documents and by applying a precise plain English language whenever possible. This is not meant as a criticism of the text presented, but as an encouragement to continue that good work. It is particularly important given that these texts need to be known by heart by preparers and user and will burden interpreters when translating the text into the relevant languages.

## Explanatory background

The UNFC is a very simple and powerful classification seen on the background of the complex issues to be resolved to achieve the reforms required to manage loss and damage, manage mitigation and adaptation to environmental change and secure affordable and sustainable resource services to meet the UN Sustainable Development Goals.

The project based UNFC focuses on products to be produced for sale and use, products that will be used by the project or not used and the source from which the products are produced. The sources and the flows past the product reference points define the quantities that projects carry and that will be entered into UNFC inventories.

Project plans may not call for complete recovery of the sources. Some may be left leaving them as sources without defined or inferred projects for recovering them. In early exploration when projects are not yet considered, all the quantities assessed will be sources and not products.

- In summary, a project will normally have quantities defined in three classes:
  - a. Quantities on the way to be produced, sold, or used outside the principal project.
  - Quantities on the way to be produced and used within the project or not used. Mine tailing will be among them. These quantities will be categories as E3.1 and follow the F categories of the principal project, i.e. the project producing quantities for sale or use.
  - c. Sources with no projects conceived for producing them.
- The principal project will move:
  - Along the E axis depending on the commitment within environmental, social and economic conditions.
  - Along the F axis depending on the project status from exploration through design, development, commissioning, production, modification and decommissioning.

In either case the categories are best defined by using observable facts, i.e. decisions taken, activities initiated etc. Herein lies the simplicity for preparers and clear information for users. The inventories will reflect sources and future production of the three forms of quantities referred to above given the current level of decisions. When the categories are E1 and F1, products will be forecasts of sale, use or non-use with the range of uncertainty of the estimates. Otherwise they will be contingent forecasts. Estimates will reflect the outcomes given that contingencies are resolved. Estimation is thereby detached from considerations of whether the project will be realised and becomes straight forward physical professional measurement/estimation exercises.

The UNFC may be applied both for projects which will be of prime interest to jurisdictions and for assets which will be of prime interest to entities. The differences are defined by the legal right that define assets and that determines the participation in projects. Governments will always be asset holders, through the fiscal system if not otherwise.

As already expressed, applying the UNFC using observable decisions and activities, classification becomes quite simple, except for the calculation or estimation of metrics. Developing estimates of metrics will be the same as for any other assessment or classification and requires professional capabilities and the quality assurance and control procedures normally applied in large engineering projects of the type at hand.

The UNFC supports resource management but does not replace it. How and when to take decisions to move a project from one category to another is often much more complex and should be addressed through resource management processes.

As written above, the UNFC 2019 addresses currently sources and products. UNFC is easily expanded to include other information that projects carry and that are essential for users. Commercial

applications clearly require information of costs, revenues, and the legal rights defining assets. Some users may want to see information on emissions including Scopes 1, 2 and 3 emissions. This remains to be clarified through the current initiatives to establish sustainability based financial reporting by the IFRS Foundation, the US Securities and Exchange Commission, EU and others. Some users may require information on supply and product chains facilitating the linking between UNFC projects and other sectors of the economy that needs to be harmonised with them in time and space.

Many projects will require information both in the form of scalars such as sources and products, and time series of activities. Resource management is in general based on time series. This can be done, taking note of the difference methodologies that apply to the assessment of uncertainties of scalars such as products and sources and vectors such as time series of production, cash, emissions, and supplies.