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UNFC Minerals Working Group

Mineral Specification Paper

Resource Management Week 2019

RESOURCES FOR SUSTAINABLE DEVELOPMENT

10th Session of the Expert Group on Resource Management

29 April – 3 May 2019, Palais des Nations, Geneva



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Status report of:

Draft specifications and guidelines for classification and management of mineral projects

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- The generic Framework Classification needs to be flanked by specific documents to guide the user.
- The “*Draft specifications and guidelines for classification and management of mineral projects*” specify this guidance for mineral projects.
- The UNFC as a living structure requires regular updates to meet the challenges of changing circumstances on a complex globe.
- → History and near future of a living document, the UNFC:

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- **UN** > **ECOSOC** as one of six principal organs > **UNECE** as one of five regional commissions
- **1992:** UNECE set up a task force to compose a **United Nations Framework Classification for Reserves/Resources**
- **1997:** **UNFC 1997** was finalised and ECOSOC recommended to all UN member countries to apply the Classification to their **coal and mineral sectors**
- **2001:** The principles of the **UNFC for Solid Fuels and Mineral Commodities** were extended to other energy resources (**oil, natural gas and uranium**)
- **2004:** Revised **UNFC for Fossil Energy and Mineral Resources** (UNFC 2004) was finalised and **worldwide** application was recommended
- **2009:** Revised **United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources** (UNFC 2009) for worldwide application was finalised
- **2015:** Countries adopted the 2030 Agenda for Sustainable Development (**2030 Agenda**) and its 17 Sustainable Development Goals (**SDGs**); thus sustainable **resource management** based on SDGs became a fundamental basis of UN resource policy
- **2019:** Revised draft **UNFC 2019** to be adopted as part of a new **United Nations Resource Management System (UNRMS)**

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General Aspects to be met by Specs (1. UNFC)

- Recognizing the need for UNFC to support sustainable development in different contexts and respond to new challenges, the Expert Group in 2018 decided to adopt UNFC as part of a new United Nations Resource Management System (UNRMS), which will provide the **principles, specifications, guidelines, protocols, best practices and case studies on sustainable management** of all **primary and secondary** resources.
- UNRMS will ensure **assessing all the aspects of resource management**, such as social, environmental, economic and technological factors, which are important for resource management rather than the single metric of quantities available in a project.

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General Aspects to be met by Specs (2. Regulatory)

- General assumptions regarding **global economic development** together with **global demographic development** led to an approach which uncouples the **economic growth** from the consumption of **primary raw materials**.
- For non-energy raw materials this can be accomplished by allowing multiple paths in the value-added chain (**circular economy**).
- Consumption of energy raw material can be reduced through substitution by using alternative and sustainable forms of energy production (**energy transition**).
- These refinements **remove** the direct **correlation of minerals consumption** (non-energy as well as energy) and the **global economic growth**.

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Mineral Specific Aspects to be met by Specs (1 Technical)

- **Sensors** available for **real-time measurement** and transfer of **Chemical, Physical** and **Survey** data in **ongoing mining** and production allow for more **selective mining**
→ **modifying factor dilution**
- **Computer assisted real-time mine planning tools** enhance efficiency and allow for both, equalisation of upstream mass streams and blending with recycling material to enhance material class and / or the combined value
→ **modifying factor recovery &**
→ **adaption to circular economy**

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Mineral Specific Aspects to be met by Specs (2 Market)

- Classical fields like **coal mining** might decrease (energy transition)
- **Waste disposal** mass streams will partly be converted to **recycling** mass streams (**circular economy**)
- **Blending** of **secondary** (recycling) with **primary** resources might increase (SDGs, circular economy)
- **Nuclear waste management** sector is rapidly increasing (the related Research and Development of state-owned companies like e.g. Swiss **Nagra** or German **BGE** contributes to development of **advanced exploration and survey techniques**)

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What does this mean for the mineral specs paper?

Chapters 1-9:

General items – ready

Chapter 10:

UNFC basic structure – quite ready

Chapter 11:

Minerals specific - ongoing

Thank you

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