

Supplemental specifications for minerals projects

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Minerals Working Group



RESOURCE MANAGEMENT WEEK 2021

ENABLING SUSTAINABILITY PRINCIPLES IN RESOURCE MANAGEMENT



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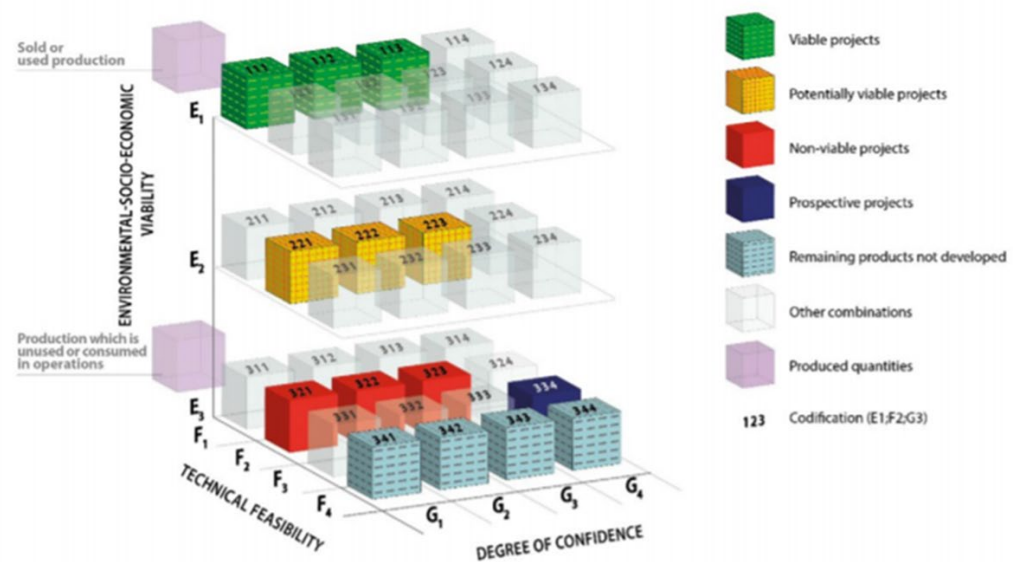
Mineral Raw Materials

First Link of Economic Value Added Chain

FEED | Mineral Projects

Fact Based Global Standard UNFC

Resource Management System UNRMS



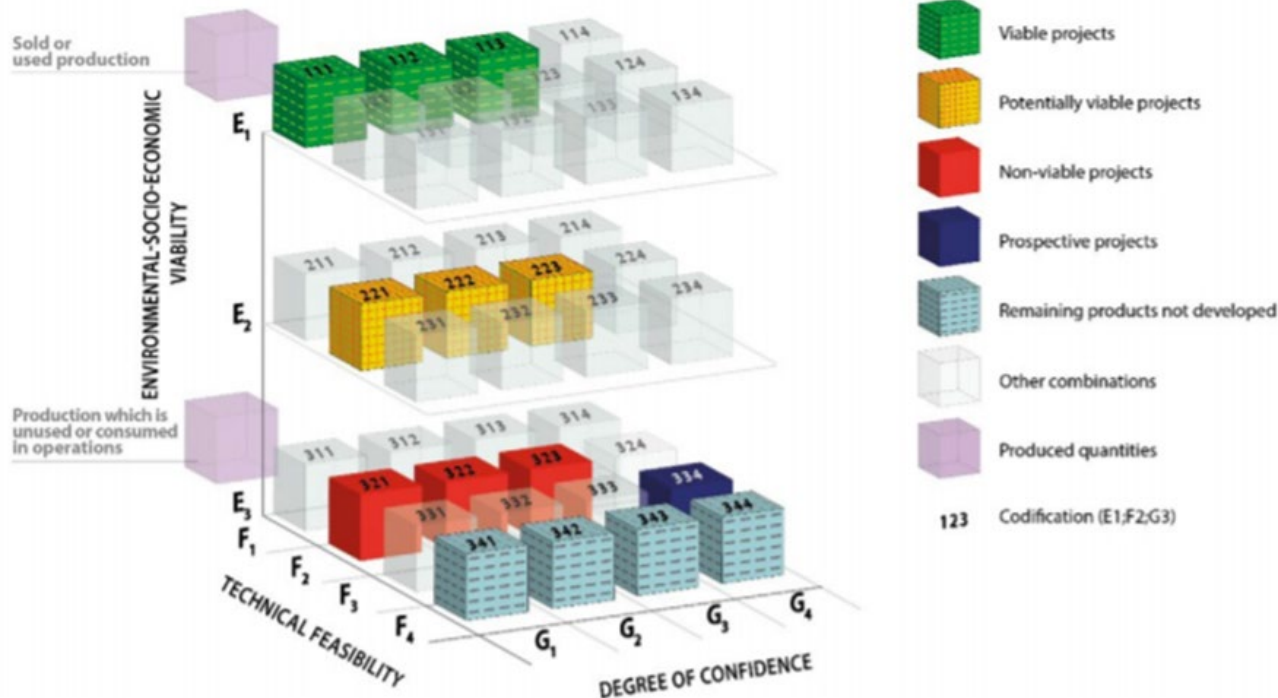
Mineral Deposit Mineral Project

Access to Markets Policy Making

Source | Classification Specifications + QA/QC

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United Nations Framework Classification

- A tool to assess the availability of mineral projects in a standardized way under defined conditions.
- Variable conditions in time are considered through reconciliation.
- International usability through a robust numerical code-based system (unbiased by languages and translation).
- These supplemental specifications provide the guideline to apply the three axes of the rating matrix to mineral projects.

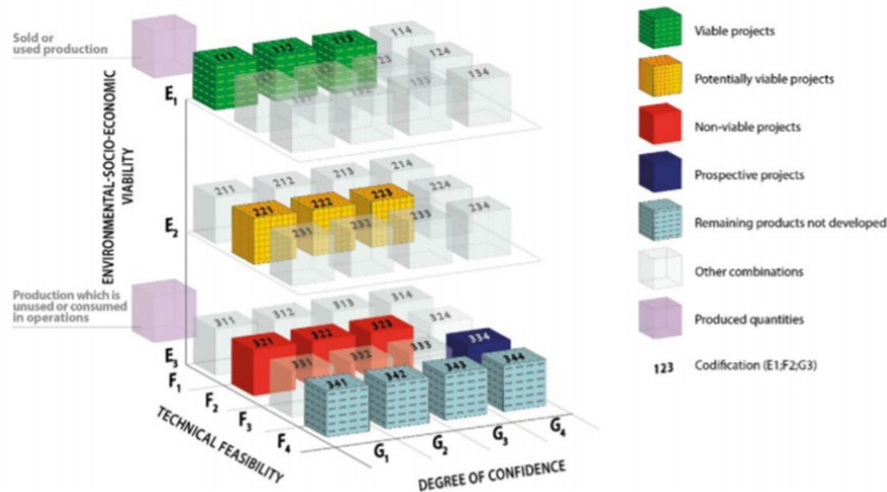
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Specifications for Mineral Projects

- **E-Axis: Socio-environmental-economic viability**
 - Multiple factors require weighing, i.e. socially or environmentally critical projects will not be considered as economically viable
- **F-Axis: Technical feasibility**
 - Might be a function of scientific progress, technical developments in mining and processing might alter the classification → reconciliation requirement
- **G-Axis: Level of (geological) confidence**
 - Is generally a function of exploration measures



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Environmental	SDG 6 Clean Water & Sanitation
	SDG 7 Energy Access & Sustainability
	SDG 13 Climate Action
	SDG 15 Life on Land
Social	SDG 1 End Poverty
	SDG 5 Gender Equality
	SDG 10 Reduced Inequalities
	SDG 16 Peace, Justice & Strong Institutions
Economical	SDG 8 Decent Work & Economic Growth
	SDG 9 Infrastructure, Innovation & Industrialization
	SDG 12 Responsible Consumption & Production



**Sustainable Development Goals SDGs
(2030 UN Agenda for Sustainable Development)**

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Key aspects of Supplemental Specifications for Mineral Projects

Mineral project plan and definition

Mineral project lifetime

Mineral project evaluation

Project classification

Project reporting

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Mineral project plan and definition

- **Prospecting/Exploration**
- **Mining**
- **Beneficiation / Processing**
- **Decommissioning**
- **Remediation**

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Mineral Project Lifetime

Project Lifetime is the remaining period of time that a project is expected to operate, constrained by technical, economic, regulatory or other permit/license cut-offs.

Mineral project lifetime is normally constrained by the period for which prospecting, exploration or mining license may apply for the project.

Mining license may include beneficiation, processing, decommissioning and remediation stages of the mineral lifecycle.

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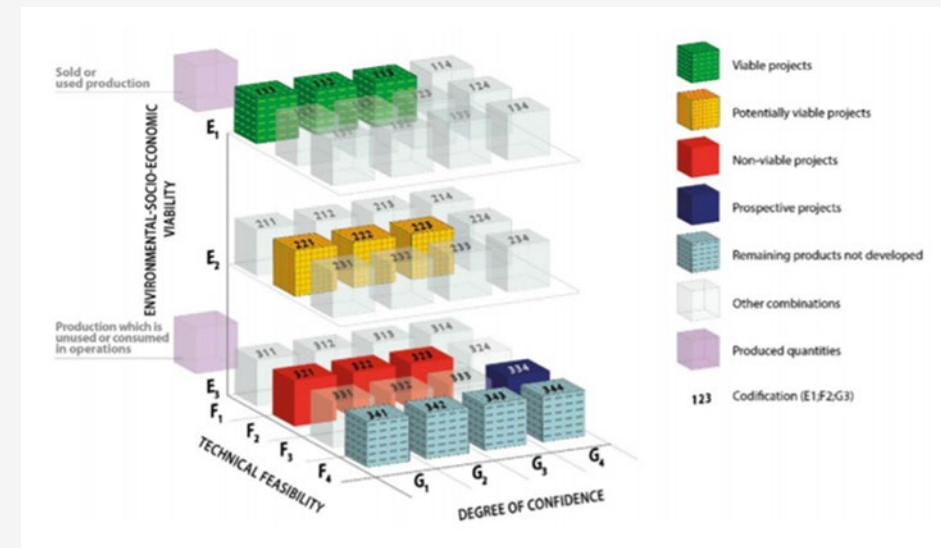
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Mineral project evaluation

Mineral projects may adopt various methodologies in the various stages of the mineral lifecycle including in the estimation of quantities as appropriate to the project. The basis for any estimations shall be appropriately referenced in the evaluation. This includes not only third-party data but also methodologies or procedures that have been used by the evaluating entity to generate in-house data.

- Environmental-socio-economic viability
- Technical feasibility
- Estimate of product quantity



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Project Classification

- **Classification of projects based on the level of maturity**
 - Where it is considered appropriate or helpful to sub-classify mineral projects to reflect different levels of project maturity, based on the current status of the project, optional sub-classes may be adopted.
- **Distinction between Environmental-Socio-Economic assumptions**
 - The environmental-socio-economic axis categories encompass the non-technical issues that directly impact the viability of a project, including product prices, costs, legal/fiscal framework, environmental regulations and known environmental or social impediments, barriers or benefits
- **Distinction between potentially produced quantities and undeveloped quantities**
 - Quantities of products associated with projects are categorized as F1 to F3 as potentially developable using existing technology or technology currently under development or operation. There may be remaining quantities with no development project. The product quantity associated with these are categorized as F4. These are quantities which, if produced, could be bought, sold or used.

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Project reporting

Baseline requirements:

Basis for the estimate

Effective date

Mineral product

Reference point

Aggregation of quantities

Use of numerical codes

Units and conversion factors

Documentation

Avoidance of double counting

National reporting

Bridging towards other international standards:

The relevant requirements of the aligned system, esp. regarding Competent / Qualified Person requirements, must be met (mandatory).

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Ethical Standards:

Resource estimation and reporting, as well as project evaluation, can be the subject of unintentional or motivational bias. To ensure mineral sources are evaluated in an unbiased manner, certain ethical standards should be observed, including compliance with the highest standards of professionalism and personal conduct in the performance of required duties.

These ethical standards include certain criteria:

- Competence
- Professionalism
- Integrity
- Independence
- Objectivity
- Transparency
- Materiality
- Accountability
- Confidentiality
- Respect



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This draft document outlines the United Nations Framework Classification for Resources (UNFC) supplemental specifications for minerals projects. The objective is to promote the use of UNFC as a system for the sustainable management of all mineral sources (resources). The mineral specifications are intended to support the attainment of Sustainable Development Goals (SDGs) as relevant to the mineral industry. Through their application, the collective industry will be directed towards the shared global goals. The development of this document will take into consideration comments received from the Technical Advisory Group and suggestions arising out of the twelfth session of the Expert Group on Resource Management. This document incorporates the changes introduced by the recent update of UNFC (2019).

Thank you

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