

UNECE RESOURCE MANAGEMENT WEEK 2023
ASSURING SUSTAINABILITY IN RESOURCE MANAGEMENT
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UNFC GUIDANCE EUROPE

Guidance for the Application of the United Nations Framework Classification for Resources (UNFC) for Mineral and Anthropogenic Resources in Europe



Deploying the United Nations Framework Classification for Resources in Europe and beyond to assure information for sustainable resource management

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Why is a UNFC-based inventory important?

A UNFC-based inventory is important for:



Public-sector decision-making ranging from onsite, municipality, regional, country, European and the UN level **on aspects of the resource life cycle**



Economic management for planning, organization, and leading activities of **management of all corporate levels**



Finance investment decision making considering economic, environmental, and social aspects **of raw material Projects**



In **expertise**, knowledge, and education

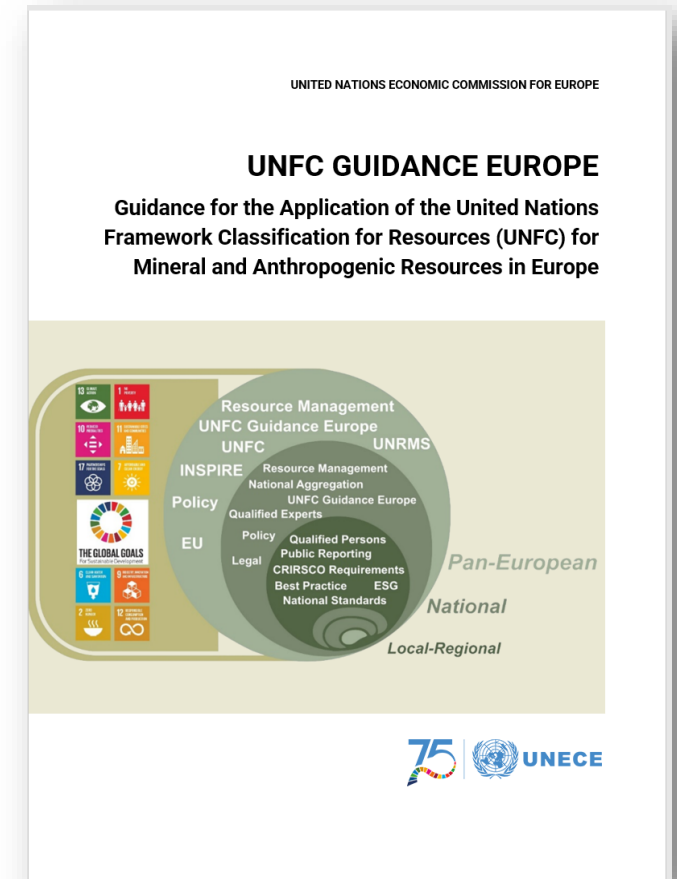


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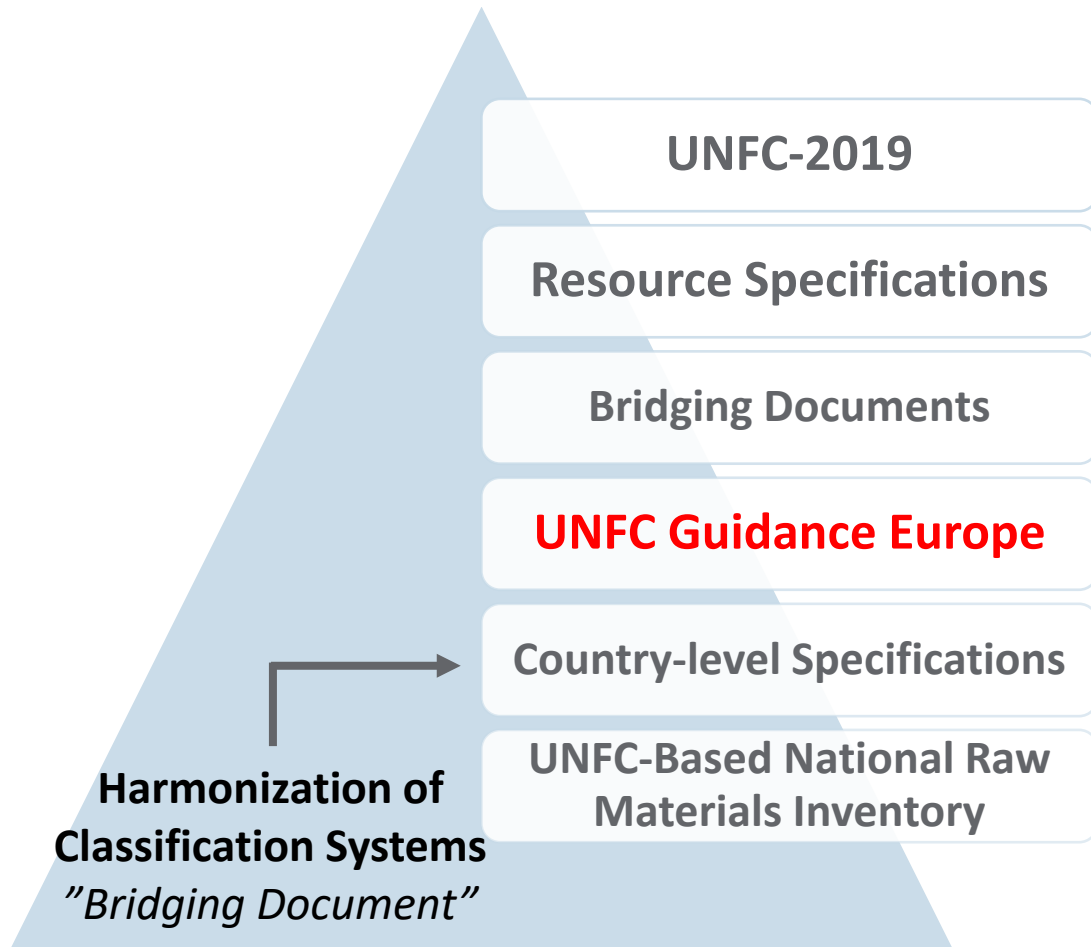
UNFC Guidance Europe

- Guidance for the Application of the United Nations Framework Classification for Resources (UNFC) for Mineral and Anthropogenic Resources in Europe
 - To facilitate the development of UNFC-based inventories across Europe and provide alignment with Infrastructure for Spatial Information in Europe (INSPIRE) for Mineral Resources.
 - To ensure clarity and comparability in national resource reporting, especially, how resource quantities are classified in accordance with UNFC and linked to various EU instruments, such as INSPIRE.
 - To assist evaluators to identify relevant controlling factors (CFs) and give the Qualified Expert assistance when making a balanced judgement in respect to categorization which may have a direct impact to the viability of a Project.



https://unece.org/sites/default/files/2022-10/Revised_UNFC_Guidance_Europe_as_of_19.October.2022.pdf

UNFC-based National & EU level raw materials inventories



- 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)
- Supplemental specifications provide the guideline to apply the three axes of the rating matrix to mineral projects.

Whom is the UNFC Guidance Europe for?



Users, including regional and national authorities in Europe to facilitate decision-making and maintain databases for primary and secondary raw material projects



Qualified experts and resource estimate preparers in Europe to classify primary and secondary raw material projects

What is UNFC Guidance for Europe?

- UNFC allows raw materials projects to be **viewed** and **classified** in **national-level** in respect to **changing social, environmental, economic, technological and geological factors/conditions**.

Aggregated national metal endowments (primary and secondary resources) within different **project maturity levels**.

Identifying relevant **controlling factors** related to **Non-Viable Projects** turning into **Potentially-Viable Projects**.



Current status and maturity level of **Viable** and **Potentially-Viable Projects**.

Identifying relevant **controlling factors** related to **Potentially-Viable Projects** turning into **Viable Projects**.



National mineral resources accounting

- Practical approach with emphasis to **national inventories** where **all commodities** can be **aggregated and reported** in **consistent and coherent** manner.
- Government organisations compile **the mineral resource data** and **report aggregated CRM endowments under UNFC** to the **European Commission**.
- Member States may use a Bridging Document for conversion if **national reporting standard is in use**.
- The information is used in research, planning of mineral exploration, national resource accounting and, hence, also in decision making on national and EU level mineral policies.



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Annex I: Classes and Sub-classes and INSPIRE Code List



To facilitate the development of UNFC-based inventories across Europe and provide alignment with Infrastructure for Spatial Information in Europe (INSPIRE) for Mineral Resources.

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ANNEX I

UNFC Classes and Sub-classes and INSPIRE Code List

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F Axis – Technical Feasibility

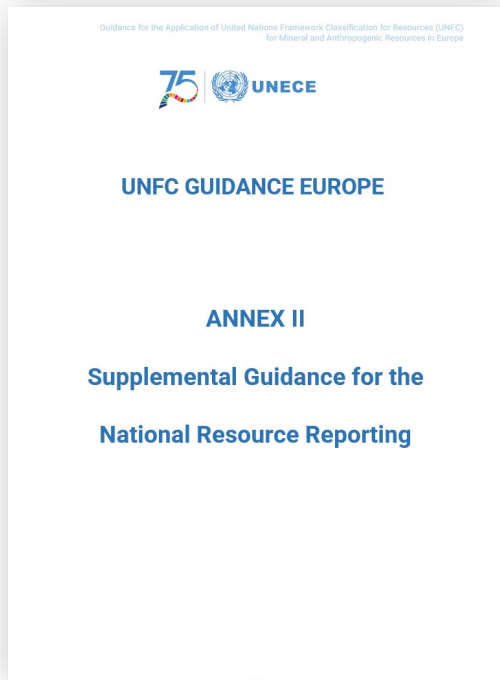
		F1.1	F1.2	F1.3	F2.1	F2.2	F2.3	F3.1	F3.2	F3.3	
A	Viable	E1.1	Operating	Under development	Pending approval						
		E1.2	Operating	Under development	Pending approval						
	Potentially-Viable	E2				Feasibility	Care&Main. Retention				
		E3.1									
	Non-Viable	E3.2					Resource assessment		Subsurface exploration	Detailed exploration	Regional recon.
		E3.3									
	Prospective										
	B	Viable	E1.1	Operating	Under development	Pending approval					
			E1.2	Operating	Under development	Pending approval					
Potentially-Viable		E2				Development Pending	Development On Hold				
		E3.1									
Non-Viable		E3.2					Development Unclassified		Prospective Projects (No sub-classes defined)		
		E3.3						Development Not Viable			
Prospective											

UNFC Classes Defined by Categories and Sub-categories					INSPIRE Code List			
Produced	Sold or used production							
	Production which is unused or consumed in operations <i>Future production that is either unused or consumed in the Project operations is categorized as E3.1. These can exist for all Classes of recoverable quantities</i>							
	Class	Sub-class	Categories					
			E	F	G			
Total Products	Known Sources	Viable Projects <i>Estimates associated with Viable Projects are defined in many classification systems as Reserves, but there are some material differences between the specific definitions that are applied within different industries and hence the term is not used here.</i>	On Production	1	1.1	1, 2, (3)	operating continuously operating intermittently	
			Approved for Development	1	1.2	1, 2, 3	under development	
			Justified for Development	1	1.3	1, 2, 3	pending approval	
		Potentially Viable Projects <i>Not all Potentially Viable Projects will be developed</i>	Development Pending	2	2.1	1, 2, 3	feasibility evaluation of the ore deposit	
			Development On Hold	2	2.2	1, 2, 3	care and maintenance retention	
		Non-Viable Projects <i>Non-Viable Projects include those that are at an early stage of evaluation in addition to those that are considered unlikely to become Viable developments within the Foreseeable Future.</i>	Development Unclassified	3.2	2.2	1, 2, 3	resource assessment (geological interpretation, approximate calculation of the resource)	
			Development Not Viable	3.3	2.3	1, 2, 3	closed abandoned historic	
		Potential Sources	Remaining Products not developed from identified Projects <i>Remaining Products not developed from identified Projects or Prospective Projects may become developable in the future as technological or environmental-socio-economic conditions change. Some or all these estimates may never be developed due to physical and/or environmental-socio-economic constraints.</i>		3.2	3.1	4	subsurface exploration
					3.2	3.2	4	detailed surface exploration
					3.2	3.3	4	regional reconnaissance
	3.3			4.1	4			
	3.3			4.2	4			
	3.3	4.3	4					

Annex II: Supplemental Guidance for the National Resource Reporting



To ensure clarity and comparability in national resource reporting, especially, how resource quantities are classified in accordance with UNFC and linked to various EU instruments, such as INSPIRE.



Guidance for National Resource Reporting

National Reporting The Use of Relevant Bridging Documents

Reported Resource Quantities and Quality Product Type

Historic Estimates Viable Projects Turn Non-Viable

Terminology Documentation



Annex III: Sectoral Guidelines for Europe



To assist evaluators to identify relevant **controlling factors (CFs)** and give the Qualified Expert assistance when making a balanced judgement in respect to categorization which may have a direct impact to the viability of a Project.



E Axis – Environmental-Socio-Economic Viability

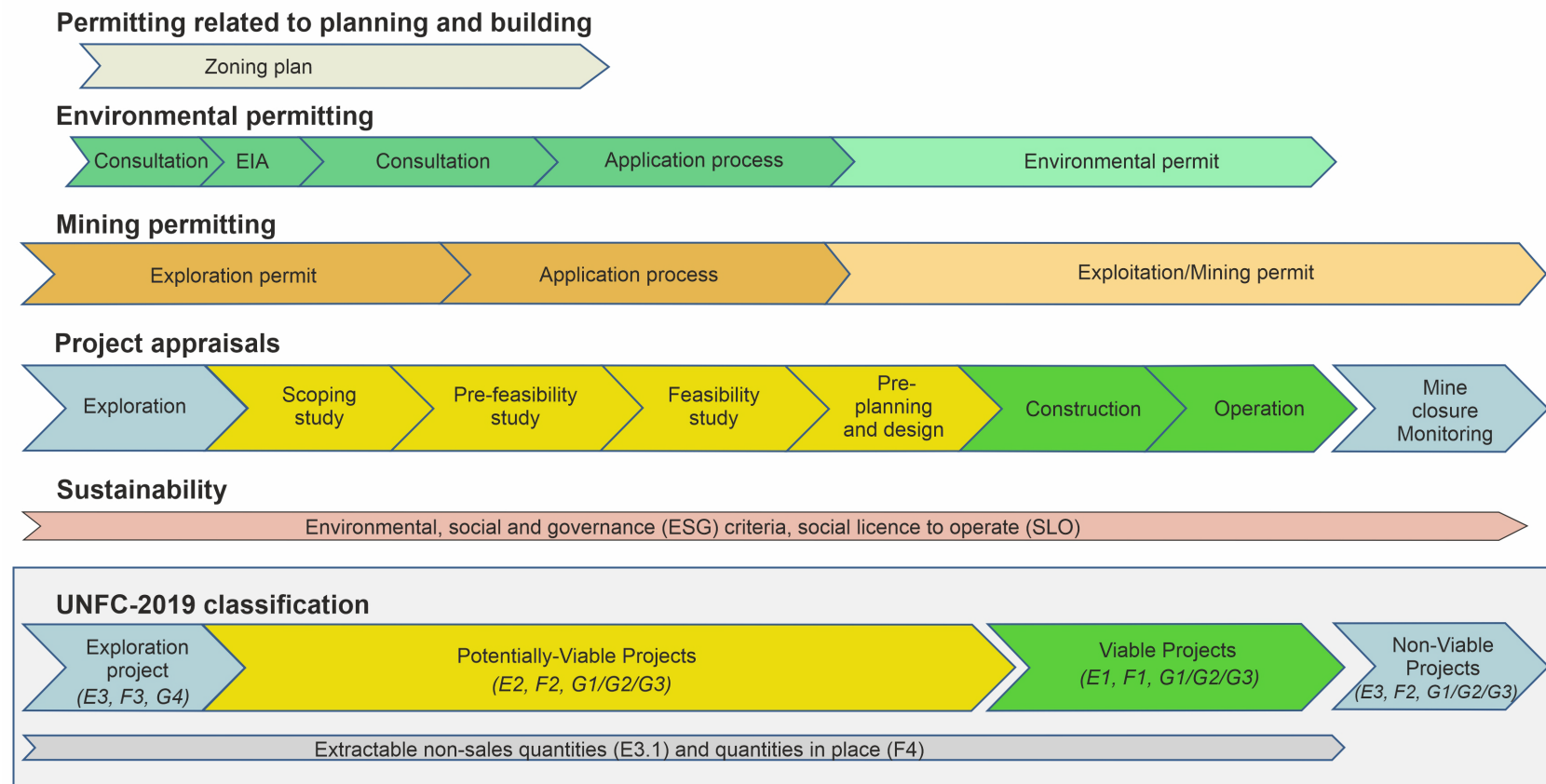
Policy Legal Framework Exploration Rights
Regulatory Approval Exploration Permits Extraction Permit

Fiscal Framework/Contractual Conditions
Social Considerations Economic Considerations

F-Axis – Technical Feasibility

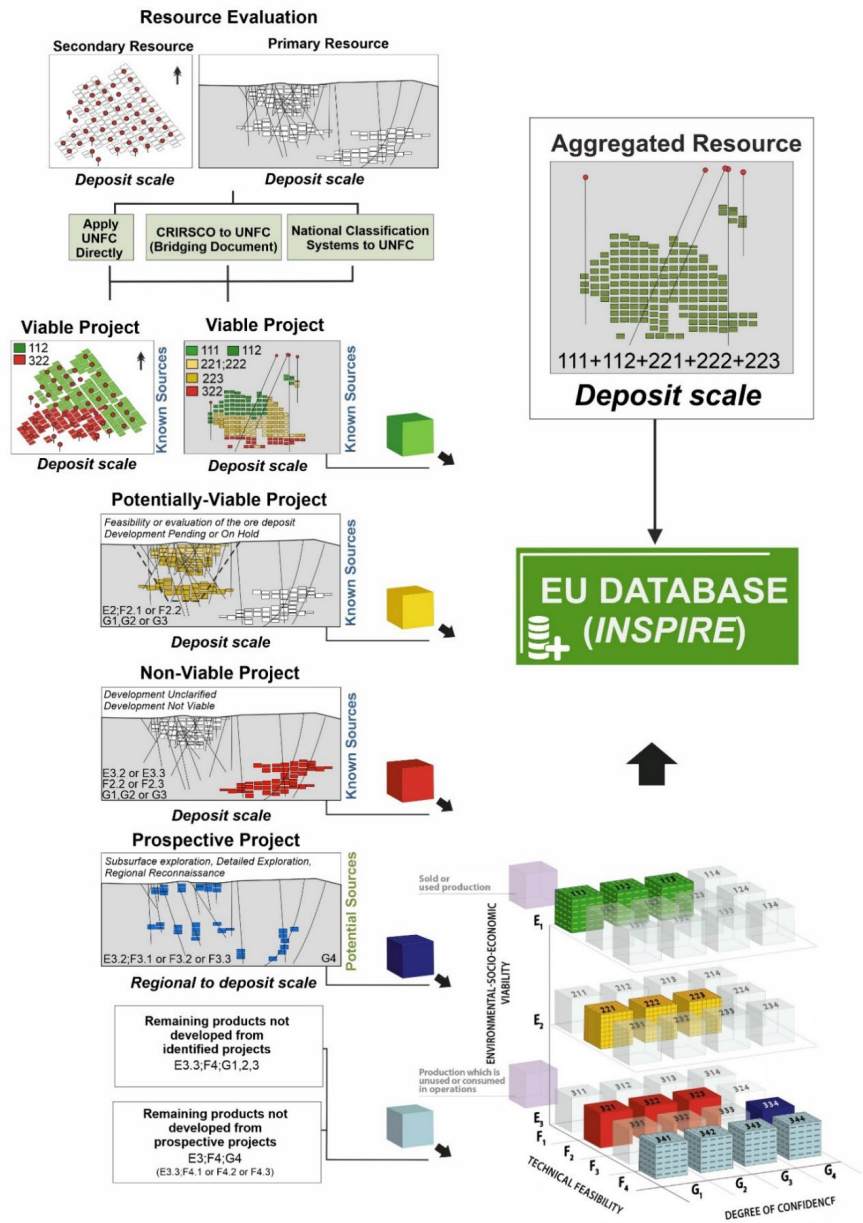
Technology Readiness Levels Mining Methods Mining Projects

Annex III: Sectoral Guidelines for Europe



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Schematic mining-related project life cycles* in governmental and industry processes with some E-Axis controlling factors



Thank you!

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