



UNFC GUIDANCE EUROPE

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UNECE



KNOWLEDGE SHARING ON RESOURCE CLASSIFICATION AND ESTIMATION

Tbilisi, Georgia 11-12 October 2023



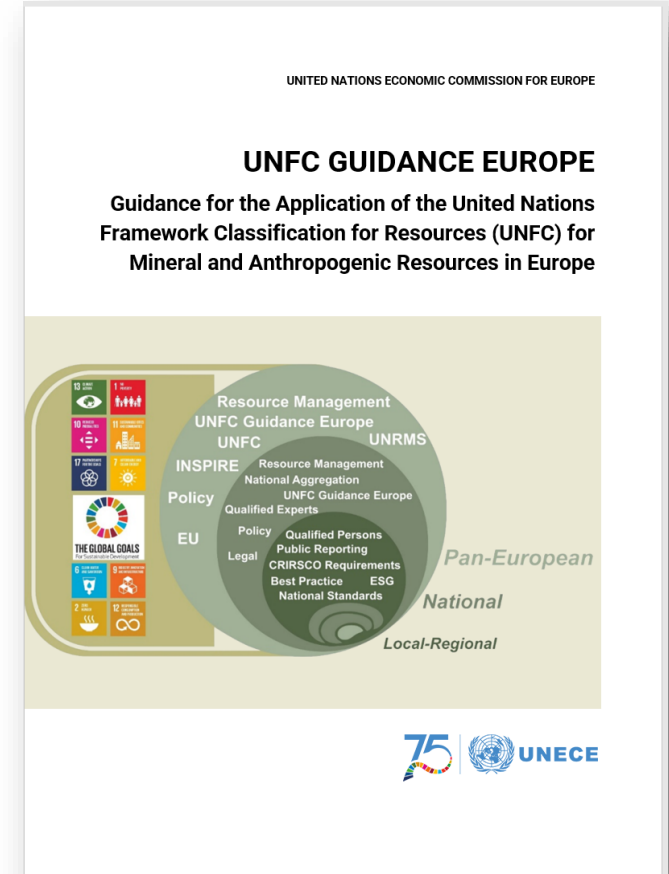
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Introduction

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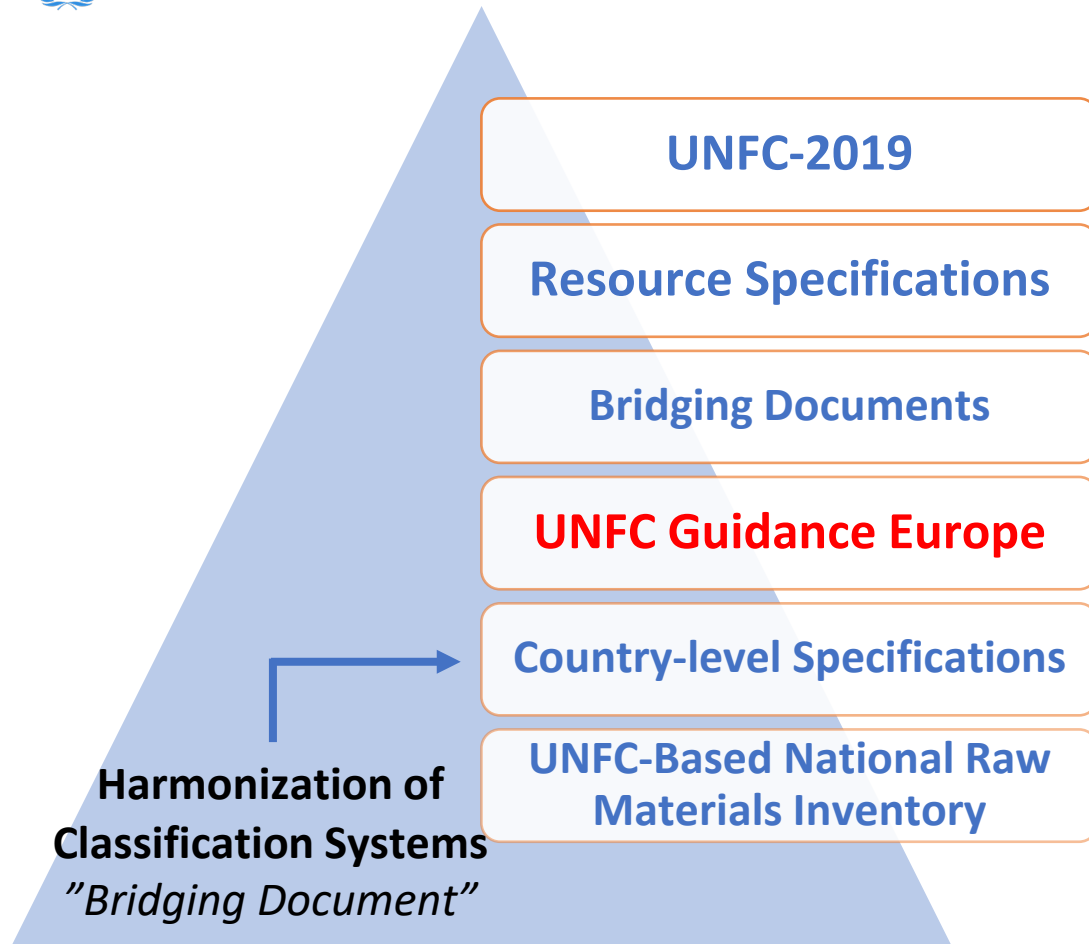
- Guidance for the Application of the United Nations Framework Classification for Resources (UNFC) for Mineral and Anthropogenic Resources in Europe
 - To facilitate the development of UNFC-based inventories across Europe and provide alignment with Infrastructure for Spatial Information in Europe (INSPIRE) 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](https://unece.org/sites/default/files/2022-10/Revised_UNFC_Guidance_Europe_as_of_19.October.2022.pdf)

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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.

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Users



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

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

Resource Management
UNFC Guidance Europe
UNFC UNRMS
INSPIRE Resource Management
National Appraisal
UNFC Guidance Europe
Policy Qualified Experts
EU Policy Qualified Persons
Legal Public Reporting
CRISCO Requirements
Best Practice ESG
National Standards

Pan-European
National
Local-Regional

75 UNECE



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

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The guidance purpose



- 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**.

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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.

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



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ANNEX I

UNFC Classes and Sub-classes and

INSPIRE Code List

13

F Axis – Technical Feasibility

		F1.1	F1.2	F1.3	F2.1	F2.2	F2.3	F3.1	F3.2	F3.3	
E Axis – Environmental-Socio-Economic Viability	A	Operating	Under development	Pending approval							
		Under development	Pending approval								
	Potentially-Viable			Feasibility	Care&Main. Retention						
	Non-Viable	Resource assessment									
		Subsurface exploration									
	Prospective	Detailed exploration									
		Regional recon.									
	B	Operating	Under development	Pending approval							
		Under development	Pending approval								
		Potentially-Viable			Development Pending	Development On Hold					
Non-Viable		Development Unclarified									
		Prospective Projects (No sub-classes defined)									
Prospective		Development Not Viable									

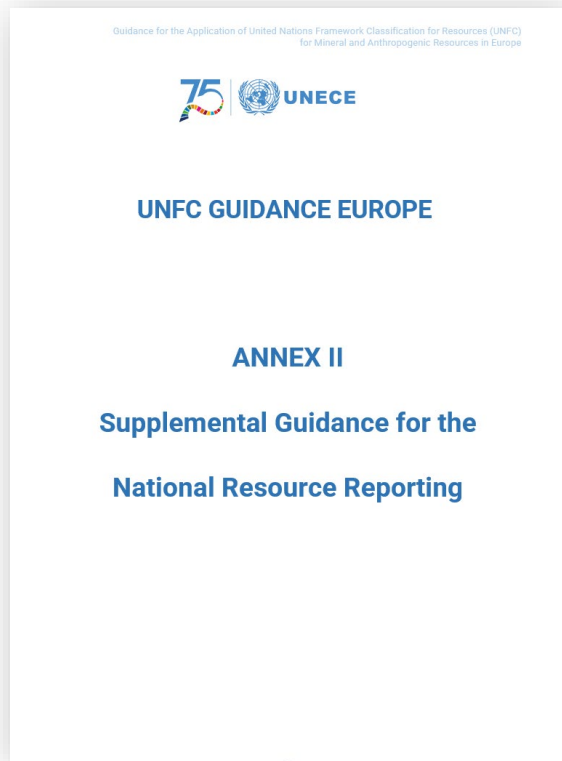
UNFC Classes Defined by Categories and Sub-categories					INSPIRE Code List		
Produced	Sold or used production						
	Production which is unused or consumed in operations <i>Future production that is either unused or consumed in the Project operations is categorized as E3.1. These can exist for all Classes 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 Unclarified	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
		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>		3.3	4	1, 2, 3	
	Potential Sources	Prospective Projects		3.2	3.1	4	subsurface exploration
				3.2	3.2	4	detailed surface exploration
3.2				3.3	4	regional reconnaissance	
Remaining Products not developed from Prospective Projects		3.3	4.1	4			
		3.3	4.2	4			
		3.3	4.3	4			

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



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**

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



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.

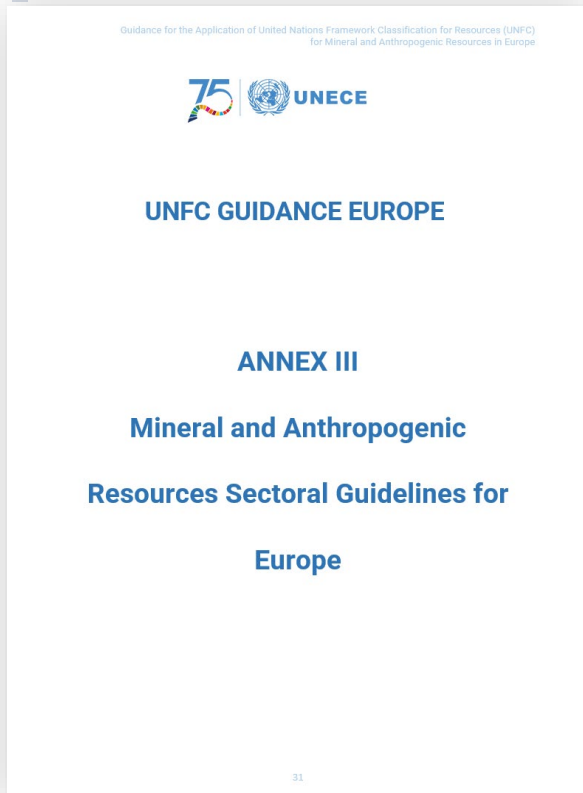
E Axis – Environmental-Socio-Economic Viability

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

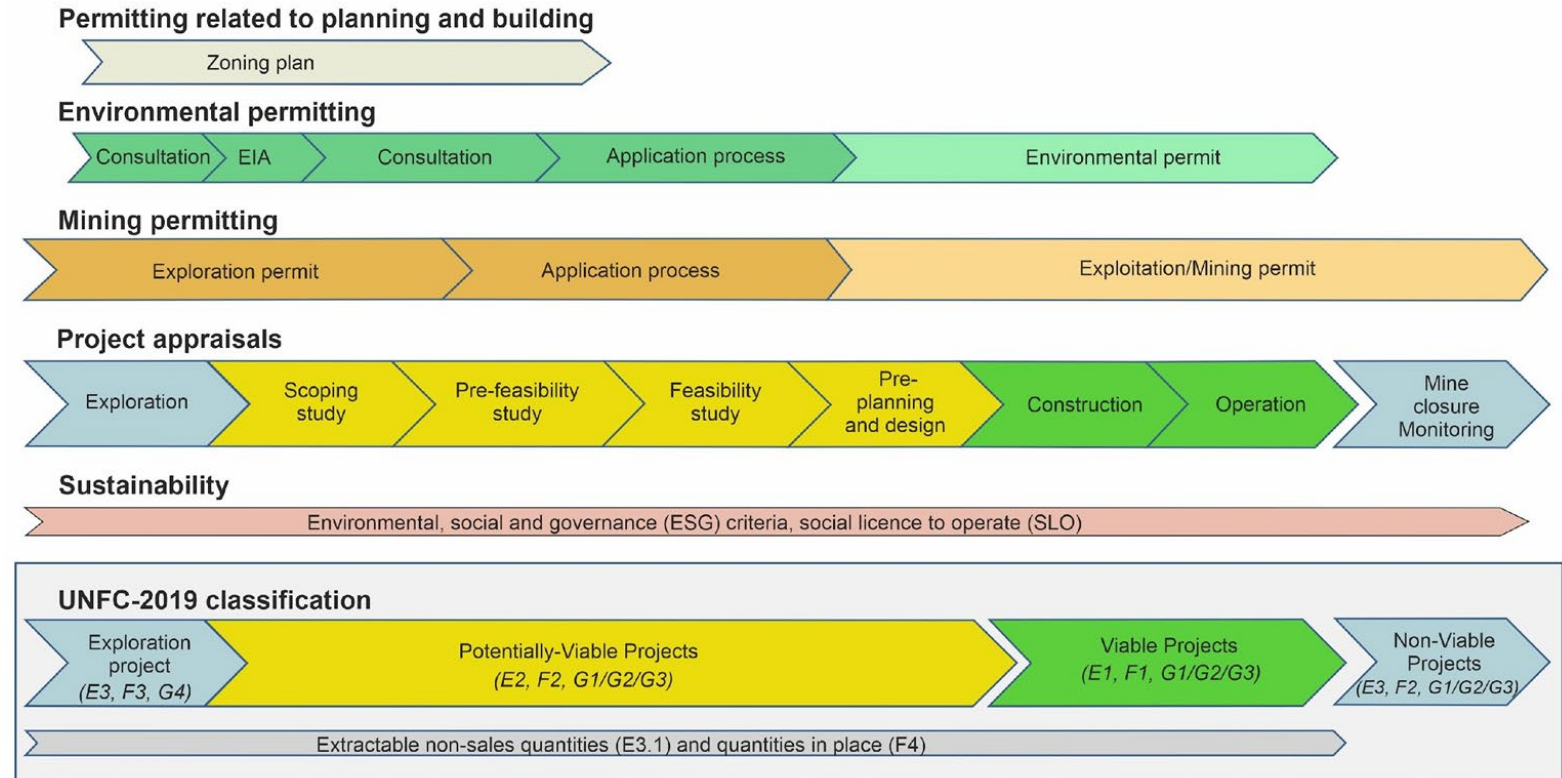


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Annex III: Classes and Sub-classes and INSPIRE Code List



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



Annex III: Sectoral Guidelines for Europe

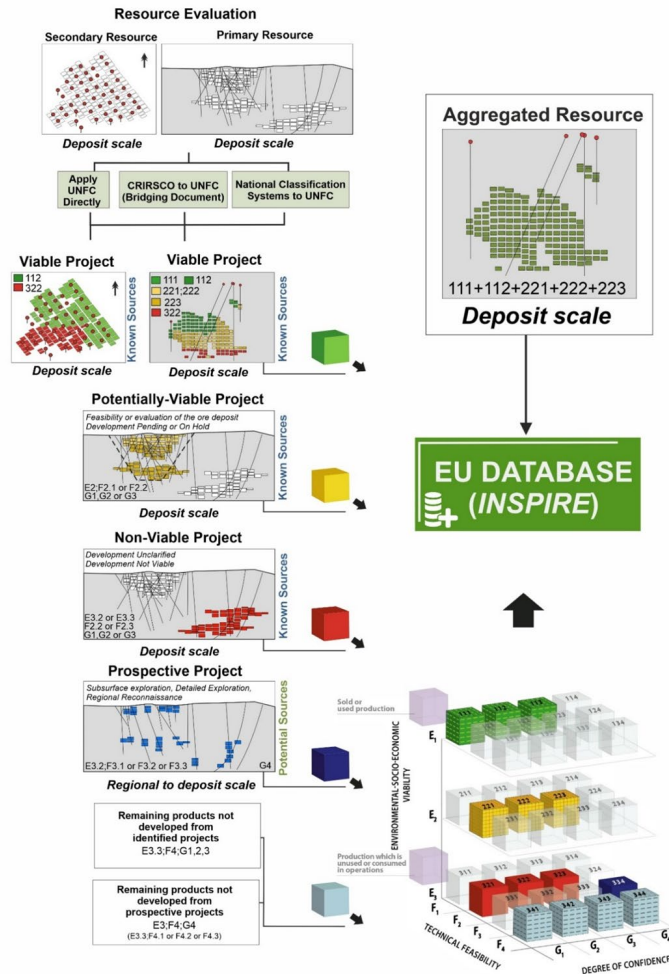
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Summary of Classification



Schematic mining-related project life cycles from Exploration to Production



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Thank you!

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