

The 8<sup>th</sup> edition  
of the Raw Materials Week

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# CRIRSCO-UNFC Bridging Document to facilitate implementation of UNFC: Commercial system

November 16<sup>th</sup>, 2023 | Janne Hokka,  
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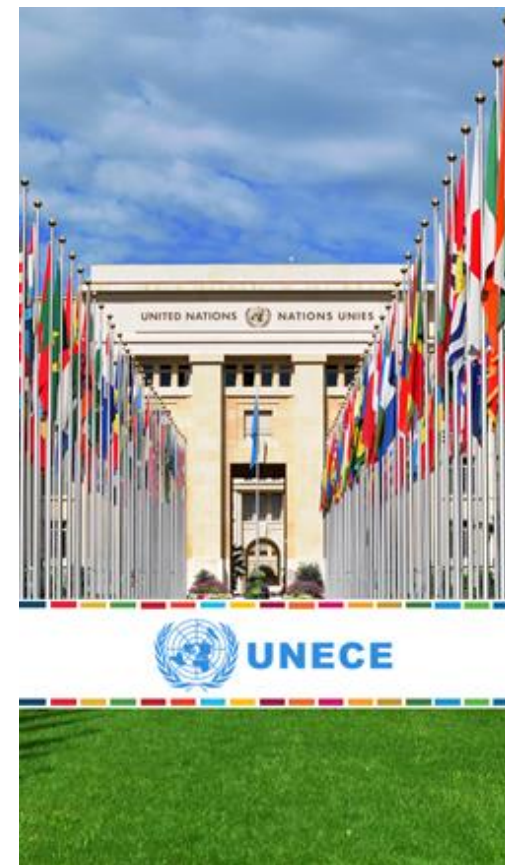
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# Joint CRIRSCO-UNECE Task Group

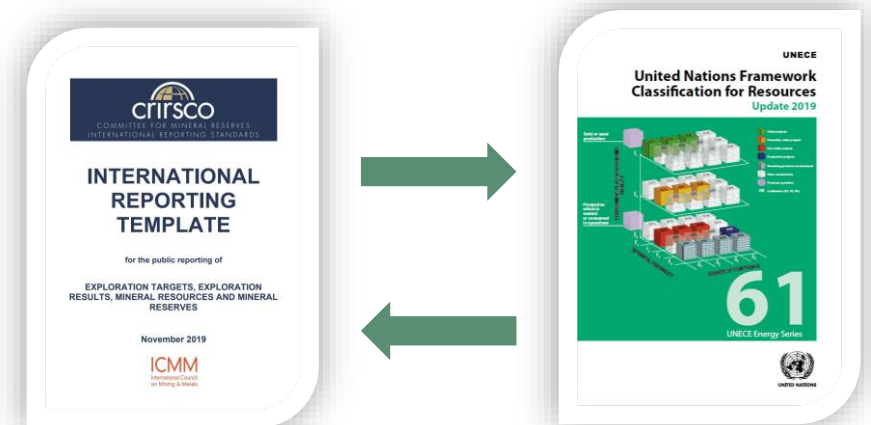
- The Task Group was charged with **updating the previous version of the CRIRSCO-UNFC Bridging Document**, which was issued in 2015, in order to take account of subsequent changes including the publication in 2019 of updated versions of both systems.

- Edmund Sides, Member of CRIRSCO
- Roger Dixon, Member of CRIRSCO
- Hendrik Falck, Member of UNECE Minerals Working Group
- Tom Bide, Member of UNECE Minerals Working Group
- Janne Hokka, Member of UNECE Minerals Working Group



# Why is important to have an updated Bridging Document?

- The **purpose of a Bridging Document** is to **explain** “*the relationship between the United Nations Framework Classification for Resources (UNFC) and another classification system, including instructions on how to classify estimates generated by the application of that system using the UNFC Numerical Codes*” (UNFC, 2019).
- The CRIRSCO-UNFC Bridging Document **provides a basis for classifying estimates** generated by **CRIRSCO Template-aligned reporting codes and standards** using the **UNFC classification system**.



# Committee for Mineral Reserves International Reporting Standards (CRIRSCO) and the CRIRSCO Template



COMMITTEE FOR MINERAL RESERVES  
INTERNATIONAL REPORTING STANDARDS

CRIRSCO was formed in 1994 and it currently representing fifteen national reporting organisations (NROs) around the world.

**The CRIRSCO Template** provides:

- a framework for the CRIRSCO-aligned reporting codes and standards.
- recognized and adopted world-wide for market-related reporting and financial investment.
- The CRIRSCO Template is the international standard for the reporting of Exploration Targets, Exploration Results, Mineral Resources, and Mineral Reserves and represents current international leading practices for the preparation of Public Reports by Mineral Companies.

# UNECE and United Nations Framework Classification for Resources (UNFC)



The UN Economic and Social Council has mandated the UNECE to develop and maintain the UNFC.

- UNFC is a global, principles-based system for classifying, managing and reporting mineral, petroleum, renewable energy, anthropogenic resources and geological storage and groundwater projects.
- To support the sustainable management of resources, resource quantities are classified on the basis of three fundamental criteria that reflect the degree of confidence in estimation, technical feasibility and environmental-socio-economic viability.
- UNFC provides a tool to assess the availability of mineral projects in a standardized way under defined conditions.
- In addition to UNFC main document, UNFC Minerals Specification (2021) and Competency Working Group report (2022) were relevant to the CRIRSCO template – UNFC Bridging process.

## 1. Bridging Document between the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) Template and the United Nations Framework Classification for Resources (UNFC)

*The official UNECE version (“short version”) complies the UN’s rules on formatting of parliamentary documents. The document will be presented for approval by EGRM in Resource Management Week (Geneva, Spring 2024).*

## 2. Guidance Note on the use of the CRIRSCO-UNFC Bridging Document

*Supportive document aimed at providing more detailed guidance on the use of the Bridging Document to assist users who are applying it.*



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Table V.1 Standard mapping of CRIRSCO Template aligned estimates to UNFC categories

CRIRSCO Template			Corresponding UNFC category <sup>(a)</sup>			UNFC Class
Public Report and Study Types	Standard Definitions					
Feasibility Study or Life of Mine Plan (for an operating mine)	Mineral Reserves	Proved	E1	F1	G1	Viable Projects
		Probable			G2	
Pre-feasibility Study <sup>(b)</sup>	Mineral Reserves	Proved	E2	F2	G1	Potentially Viable Projects
		Probable			G2	
Feasibility Study, Life of Mine Plan (for an operating mine) or Pre-feasibility Study <sup>(c)</sup>	Mineral Resources (exclusive of Mineral Reserves)	Measured	E2	F2	G1	Potentially Viable Projects
		Indicated			G2	
		Inferred			G3	
Scoping Study report or other Public Report on a Mineral Resource estimate <sup>(d)</sup>	Mineral Resources	Measured	E2	F2	G1	Potentially Viable Projects
		Indicated			G2	
		Inferred			G3	
Public Report on exploration stage projects	Exploration Target		E3	F3	G4	Prospective Projects
	Exploration Results	Estimates not published				
Not applicable <sup>(e)</sup>	Estimates obtained from historical reports <sup>(f)</sup>				Non-viable Projects	

## 2015 version

CRIRSCO Template		UNFC-2009 "minimum" Categories			UNFC-2009 Class
Mineral Reserve	Proved	E1	F1	G1	Commercial Projects
	Probable			G2	
Mineral Resource	Measured	E2	F2	G1	Potentially Commercial Projects
	Indicated			G2	
	Inferred			G3	
Exploration Target		E3	F3	G4	Exploration Projects

# Competency & Qualification

## Competent Persons/ Qualified Persons (CRIRSCO)

- Industrial professional
- Independent or non-independent (companies or consultants)
- Relevant experience in deposit type or style of mineralisation and type of work
- Public Disclosure (sign-off)
- Personal liabilities
- Project-level (company-level reporting to investors and mining authorities)

## Qualified Experts (UNECE)

- Geoscience professional
- Independent (Geological Surveys, Mining Authorities)
- Relevant experience in ore geology, mining industry, ESG, company reporting, national accounting, regulations
- Resource information management/bridging/accounting, no public disclosure
- National-level (country-level reporting/communication to ministry and EU)

Competency requirements defined in UNECE (2022) Guidance Note on Competency Requirements for the Estimation, Classification and Management of Resources.



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- Recently the European Union (EU) and other UNECE countries have expressed interest in the application of the UNFC to provide a framework for the **development of harmonised transnational databases on mineral information** as well as providing a means of **assessing and monitoring strategic mineral projects**.
- **A common objective** of both the CRIRSCO Template and the UNFC is to **communicate** information on the levels of **uncertainty associated with the estimates** of the size and quality of mineral deposits to the users of such information.

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- The Bridging Document and the additional Guidance Note **ensure** an **accurate** and **precise bridging** between the two classifications to support:
  - *a better overview of primary and secondary mineral resources in Europe.*
  - *planning for improved security of supply and the achievement of climate goals both at EU and national level.*
- The **cooperation** and **synergy** related to **raw materials information** across Europe is **essential** to meet these goals.



# Thank you!

Janne Hokka  
Senior Specialist (EurGeol), Geological Survey of Finland

## References:

Committee for Mineral Reserves International Reporting Standards 2019. International Reporting Template for the Public Reporting of Exploration Results, Mineral Resources and Mineral Reserves, November 2019. 79 p. Online: [www.criirco.com](http://www.criirco.com)

UNECE (2022) Guidance Note on Competency Requirements for the Estimation, Classification and Management of Resources. Prepared by the Competency Working Group of the Expert Group on Resource Management, Dated 25 October 2022. Available at: [https://unece.org/sites/default/files/2022-11/Guidance\\_Note\\_on\\_Competency\\_Requirements\\_25\\_October\\_2022.pdf](https://unece.org/sites/default/files/2022-11/Guidance_Note_on_Competency_Requirements_25_October_2022.pdf)

UNFC (Update 2019) (current version) [https://www.unece.org/fileadmin/DAM/energy/se/pdfs/UNFC/publ/UNFC\\_ES61\\_Update\\_2019.pdf](https://www.unece.org/fileadmin/DAM/energy/se/pdfs/UNFC/publ/UNFC_ES61_Update_2019.pdf)

Supplementary Specifications for the Application of UNFC to Minerals <https://unece.org/sites/default/files/2022-01/UNFC%20Mineral%20Specifications%202021.pdf>