



COMMITTEE FOR MINERAL RESERVES
INTERNATIONAL REPORTING STANDARDS



COMMITTEE FOR MINERAL RESERVES
INTERNATIONAL REPORTING STANDARDS

The relationship between the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) Template 2013 and the United Nations

Framework Classification (UNFC 2009)
South African Representative, CRIRSCO
Cape Town August 30 2016



To promote best practice in the international public reporting of Mineral Exploration Results, Mineral Resources and Mineral Reserves.

CRIRSCO is an international advisory body without legal authority, relying on its constituent members to ensure regulatory and disciplinary oversight at a national level.

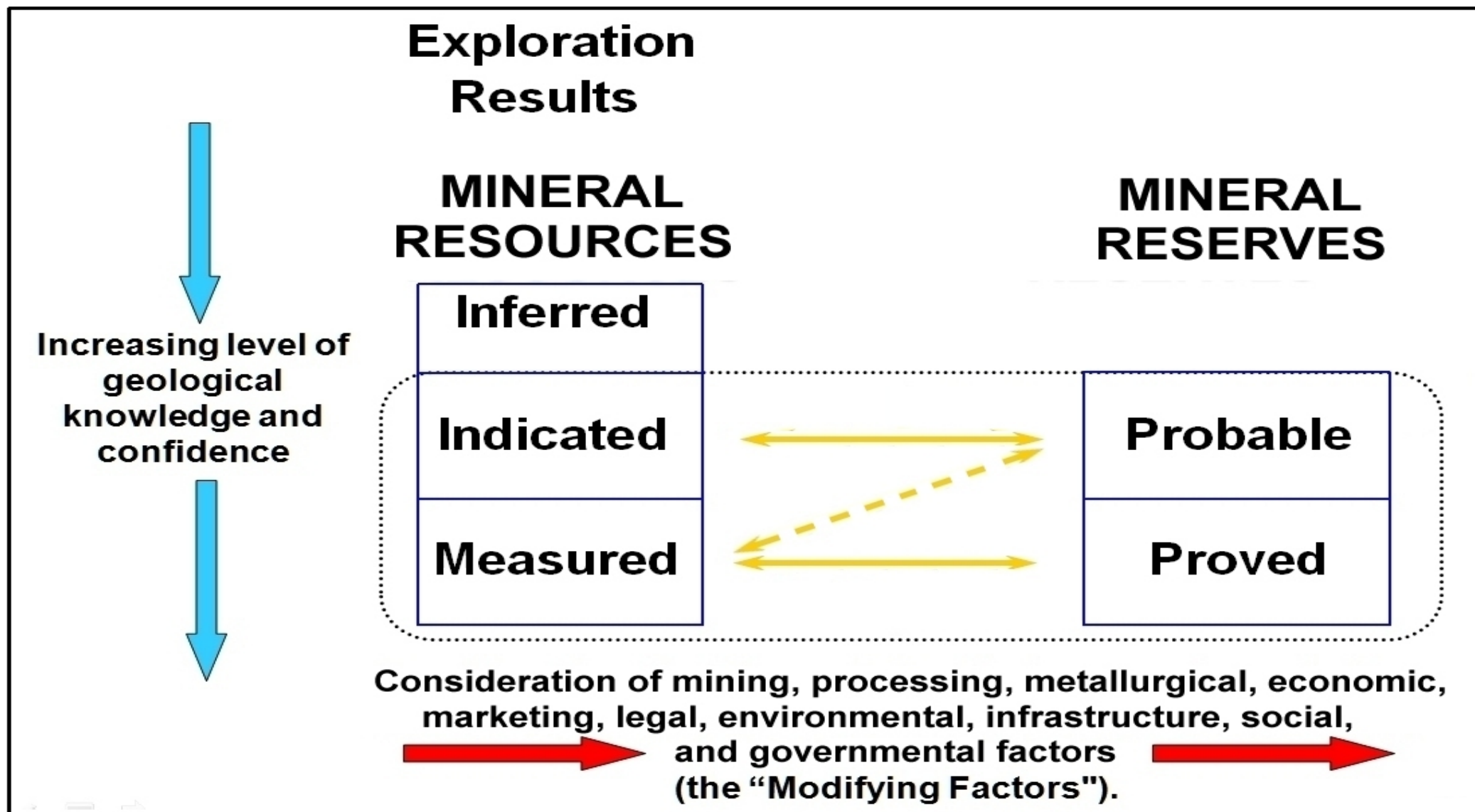
It recognises the truly global nature of the minerals industry and the agreed need for international consensus on reporting standards.

INTERNATIONAL REPORTING TEMPLATE

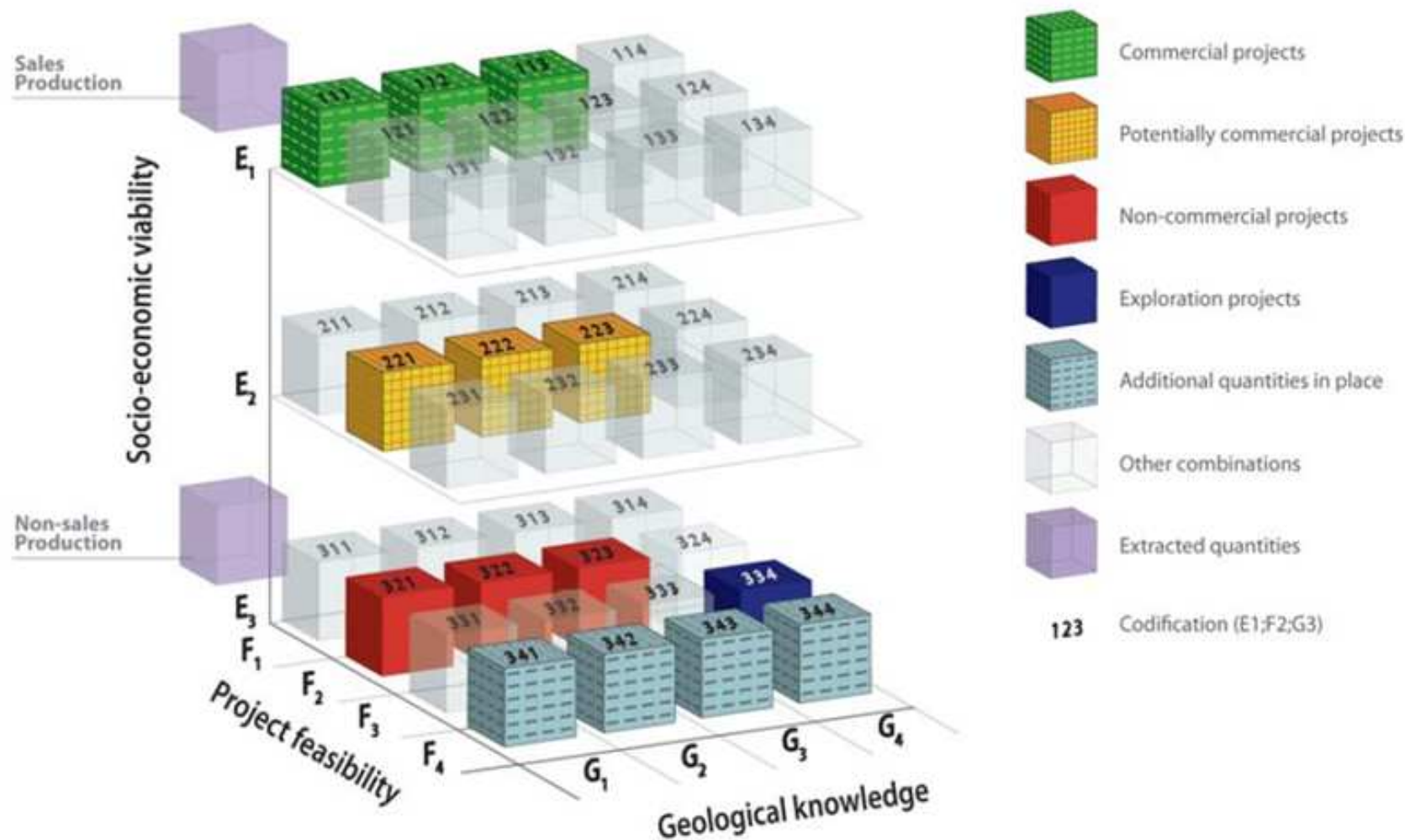
for the public reporting of

EXPLORATION RESULTS, MINERAL RESOURCES
AND MINERAL RESERVES

NOVEMBER 2013

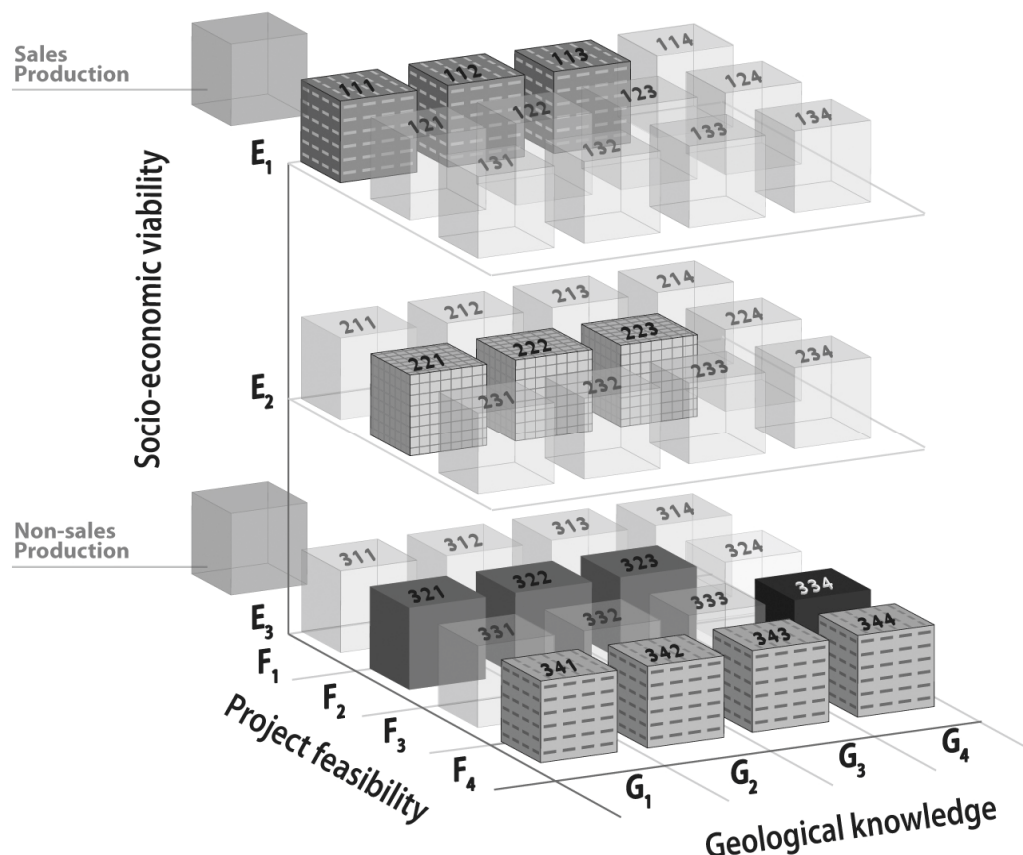


- Advisory only
- National Standards/Codes take precedence
- Model for development of new codes



- Generic classification system applicable to Fossil Energy and Mineral Reserves and Nuclear fuels;
- Provides a single framework on which to build international energy and mineral studies;
- Allows for non-economic mineralisation
- Soon to be applicable to renewable energy

Important tool for harmonized generic terminology at a level suitable for global communication



Generic, Principle based

3 Axis

Economic,

Feasibility,

Geological

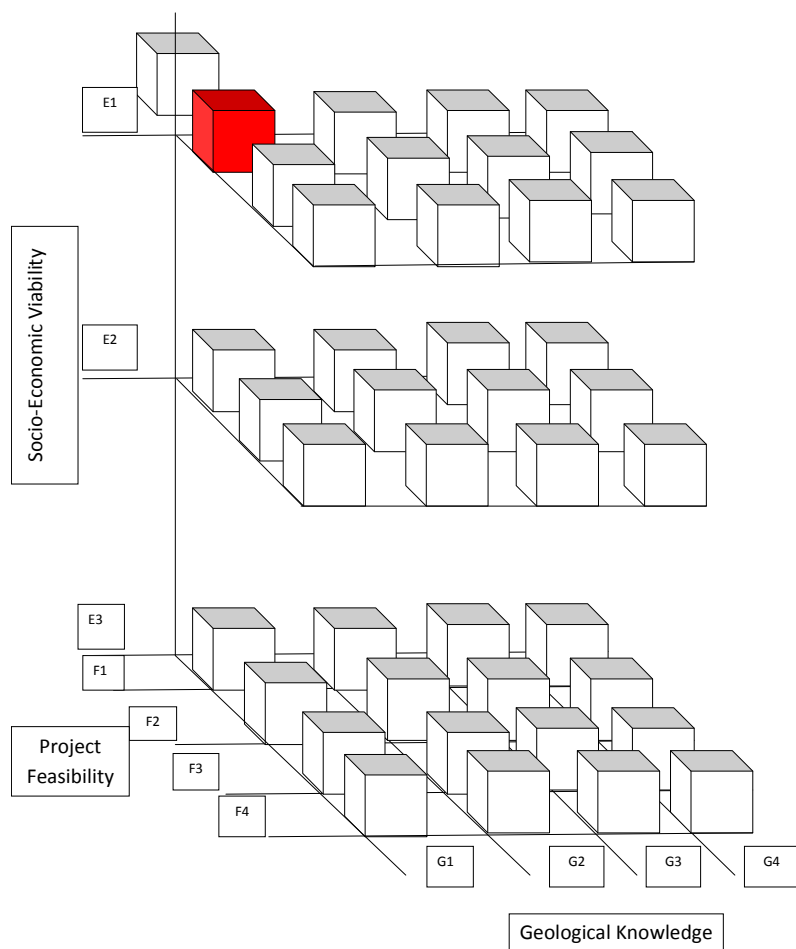
Numerical code

Applied directly or as harmonizing tool

- 1999 Geneva accord solid minerals only (CMMI)
- 2004 UNFC common definitions modified-oil and gas added
- 2004 CRIRSCO re-constituted
- Member ad hoc group of experts - Mapping UNFC 2004, PRMS
- Member EGRC - UNFC 2009 and Specifications Task Force II
- Member of Technical Advisory Group (TAG)

Total commodity initially in place	Production	Sales Production			
		Non-sales Production			
		Class	Categories		
			E	F	G
	Future recovery by commercial development projects of mining operations	Mineral Reserves	1	1	1,2
	Potential future recovery by contingent development projects or mining operations	Mineral Resources	2	2	1,2,3
		Discovered Not Economic	3	2	1,2,3
	Discovered Unrecoverable		3	4	1,2,3
	Potential future recovery by successful exploration activities	Exploration Results	3	3	4
	Undiscovered Unrecoverable		3	4	4

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 Results		E3	F3	G4	Exploration Projects



UNFC (2009)

E1; F1; G1

111

- Mapped to CRIRSCO Template
- Mapped to UNFC 2009

UNFC-2009 CLASSIFICATION					CRIRSCO TEMPLATE		NEA/IAEA CLASSIFICATION			
UNFC CLASSES AND SUB-CLASSES		UNFC CATEGORIES			CRIRSCO CLASSES AND SUB-CLASSES					
CLASS	SUB-CLASS	E	F	G	CLASS	SUB-CLASS	IAEA-NEA CATEGORIES		STATUS	
COMMERCIAL PROJECTS	ON PRODUCTION	1	1.1	1	MINERAL RESERVES	PROVED	IDENTIFIED RESOURCES	RAR **	EXISTING	
				2		PROBABLE			COMMITTED	
	APPROVED FOR DEVELOPMENT	1	1.2	1		PROVED				PLANNED
				2		PROBABLE				
	JUSTIFIED FOR DEVELOPMENT	1	1.3	1		PROVED				
				2		PROBABLE				
POTENTIALLY COMMERCIAL PROJECTS	DEVELOPMENT PENDING	2	2.1	1	MINERAL RESOURCES	MEASURED	IDENTIFIED RESOURCES	RAR **	PROSPECTIVE	
				2		INDICATED		IR*		
				3		INFERRED		RAR **		
	DEVELOPMENT ON HOLD	2	2.2	1		MEASURED		RAR **		
				2		INDICATED		IR*		
				3		INFERRED				
				NON-COMMERCIAL PROJECTS		DEVELOPMENT UNCLARIFIED		3.2		2.2
2	IR*									
3										
DEVELOPMENT NOT VIABLE	3.3	2.3	1		NOT VIABLE (NOT DEFINED IN TEMPLATE)	RAR **	NOT VIABLE			
			2							
			3	IR*						
EXPLORATION PROJECTS		3.2	3.1	4	EXPLORATION RESULTS		UNDISCOVERED RESOURCES	PROGNOSTICATED RESOURCES		
		3.2	3.2, 3.3	4				SPECULATIVE RESOURCES		



ALL SLIDES

WWW.CRIRSCO.COM

UNECE.ORG SUSTAINABLE ENERGY