



Usage of UNFC as a Universal System of Resources/Reserves Estimation in Ukraine

State Commission of Ukraine on Mineral
Resources

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Introduction



Ukraine was the first country that adapted its Classification of mineral reserves and resources to UNFC, following UNECOSOC № 227/1997 decision, according to which UNFC is recommended to be widely used by all UN member-countries. Ukrainian Classification is applied to all types of mineral products unexceptionally.

Classification of reserves and mineral resources is a framework and it is designed to apply to all kinds of minerals.

Specifications for mineral reserves and resources



Its application to reserves and resources of specific types of minerals, including technogenic ones, is determined by the Specifications, which are identified as **The Regulations (Guidelines) of State Commission of Ukraine on Mineral Resources.**



Regulations (Guidelines) provide detailed requirements for: exploration study of mineral resources, their gustation methods, delineation and estimation depending on geologic-industrial types of deposits, complexity of their geology aspects and other factors that influence the validity of economic-geological evaluation.

The **Regulations** also provide harmonization between new reserves and resources groups, adopted in the Classification, and exploration categories of minerals, as well as reliability of mineral reserves.

Ukrainian Mineral Resources Classification



Economic Value	The degree of technical and economic exploration	The degree of geologic exploration	Class Code
1. Balance reserves (1..)	GEE-1 (.1.)	Explored reserves (..1)	111 Explored
	GEE-2 (.2.)		121 Probable
			Prospected reserves (..2)
2. Conditionally balance and outbalance reserves (2..)	GEE-1 (.1.)	Explored reserves (..1)	211
	GEE-2 (.2.)		221
			Prospected reserves (..2)
3. Economic value is not defined (3..)	GEE-3 (.3.)	Explored reserves (..1)	331
		Prospected reserves (..2)	332
		Inferred reserves (..3)	333
		Possible reserves (..4)	334

Fig. 1. Ukrainian Classification of mineral reserves and resources

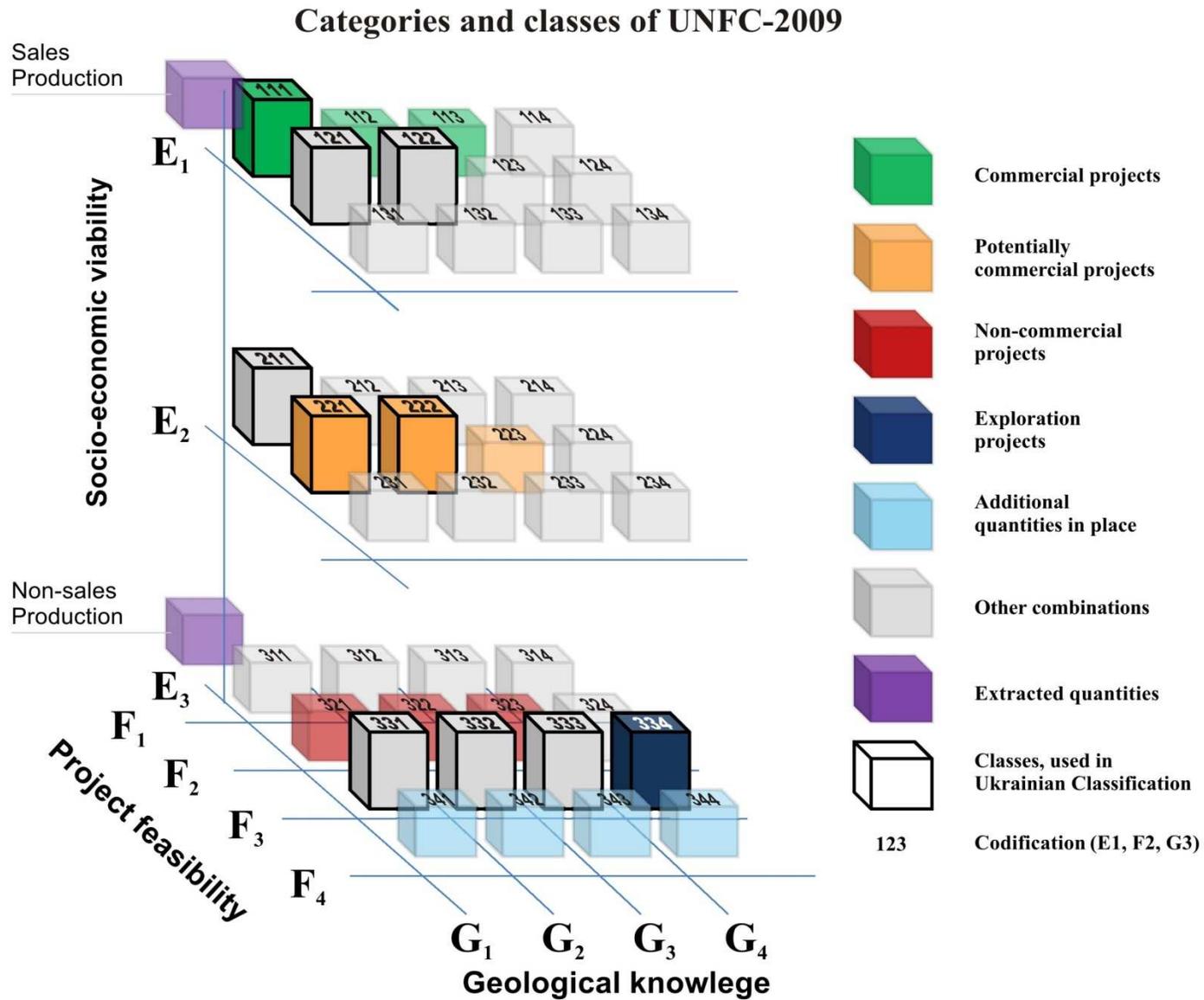


Fig. 2. UNFC-2009

Classification mapping



Fig. 2. illustrates mapping of Ukrainian Classification and UNFC-2009.

It will be seen that among 40 classes, defined by UNFC, only 10 are used in Ukrainian Classification. Ukrainian legal framework does not allow to take all the opportunities, specified by UNFC-2009, yet.

Despite different Class names, the quantities of minerals that have common socio-economic viability (E axis), project feasibility (F axis) and geological knowledge (G axis), can be identified with one and the same numeral code.

In summary, both Classifications are comparable.



The CRIRSCO Template

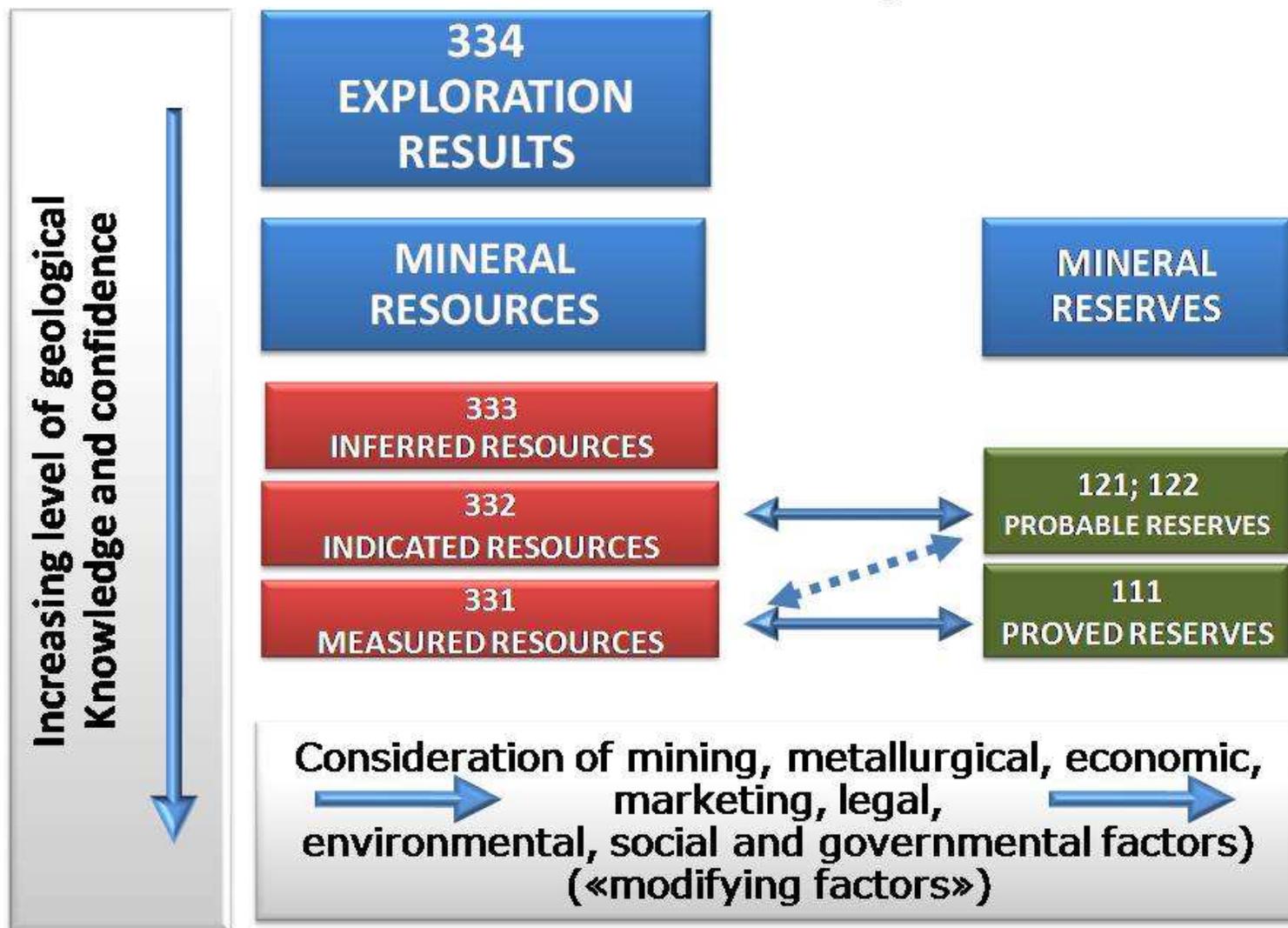


Fig. 3. The CRIRSCO Template

The CRIRSCO Template



The mapping of Ukrainian Classification and the CRIRSCO Template is shown in Fig. 3.

Also it will be seen that among 10 classes of Mineral resources that belong to Ukrainian Classification only 7 are represented in the CRIRSCO Template.

Obviously, it is due to the reason that balance and outbalance reserves, which are outlined as 221, 222 and 211 Class Codes, can not be applied to the CRIRSCO Template. These Classes are included into the category “Mineral Resources”.

However, the quantities of Mineral Resources, which belong to one of the CRIRSCO Template Classes, can be identified as the Codes that are specific to Ukrainian Classification.

Thus, both Classifications are comparable.