

# crirSCO

COMMITTEE FOR MINERAL RESERVES  
INTERNATIONAL REPORTING STANDARDS

## MINERAL RESOURCES AND RESERVES INTERNATIONAL REPORTING STANDARDS



*Comisión Calificadora de  
Competencias en Recursos  
y Reservas Mineras*

**CHILE**

**ICMM**

Edmundo Tulcanaza

Chairman

Committee for Mineral Reserves International  
Reporting Standards

131120

# AGENDA

- WHY TO REPORT MINERAL ASSETS
- UNFC
- CRIRSCO
- UNFC AND CRIRSCO
- THE CHILEAN COMMISSION

### WHY TO REPORT MINERAL ASSETS

Through time, metals and mineral resources have been increasing their role in the growth and development of emergent and global economies.

Because of their role and their economic, social, environmental, and community importance, metals and mineral resources are today – much more than before – of concern of regulators, governments, community groups, workers, and investors.

To satisfy these various interests, benefits, potential, challenges, vulnerabilities, and risks merit to be reported with transparency, materiality, and competence.

### WHY TO REPORT MINERAL ASSETS

Despite these intentions in proper reporting, the intrinsic uncertainties associated with the mineral assets avoid a reliable and complete information such as that required by all stakeholders.

The required information has to deal with the weakness, flaw, goodness, and merits of geological, metallurgical, operational, environmental, and other data – which at the preliminary stage – is the fragmentary and insufficient nature.

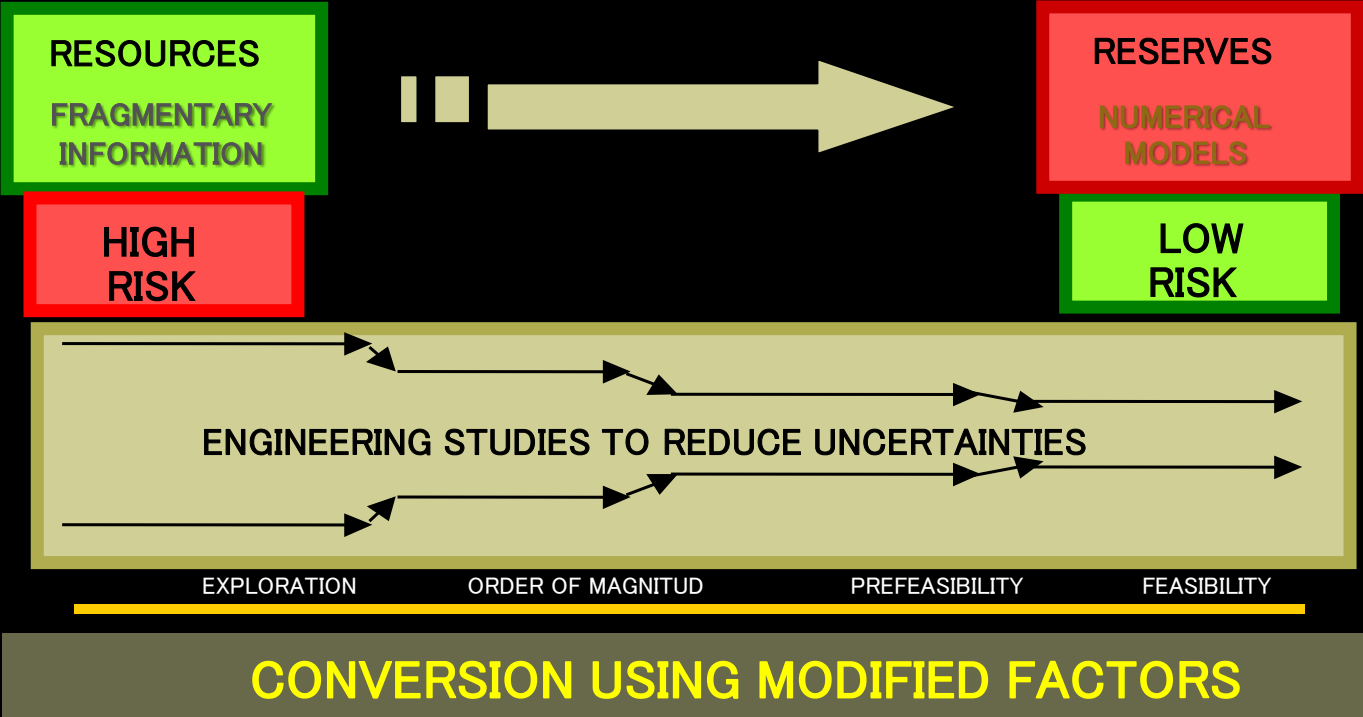
As information grows along the various sequential phases of studies and engineering, confidence in the reporting data increases as well as the reporting quality.

# MINERAL RESOURCES AND RESERVES

## INTERNATIONAL REPORTING STANDARDS

### WHY TO REPORT MINERAL ASSETS

#### CONVERSION OF MINERAL RESOURCES TO MINE RESERVES



# MINERAL RESOURCES AND RESERVES

## INTERNATIONAL REPORTING STANDARDS

### CRIRSCO

#### COMMITTEE FOR MINERAL RESERVE INTERNATIONAL REPORTING STANDARDS

CRIRSCO-style standards require that publicly reported resource and reserve information is based on work undertaken by a Competent Person, a mining professional with at least five years of experience and relevant qualifications in some areas of the mineral resources industry.

It is the Competent Person's **responsibility** to ensure that estimates and their level of confidence have been performed properly.

CRIRSCO has seven associated National Organizations (Australia, Canada, Chile, Europe, Russia, South Africa, USA-SME) and a strategic partnership with the International Council on Mining and Metals (ICMM).

# MINERAL RESOURCES AND RESERVES

## INTERNATIONAL REPORTING STANDARDS

# CRIRSCO

## EXPLORATION RESULTS

mineral  
mineral

Increasing level of geological knowledge and confidence

Geoscientists with appropriate experience and professional credentials are responsible for progression down this axis

Inferred  
Indicated  
Measured

Probable  
Proved

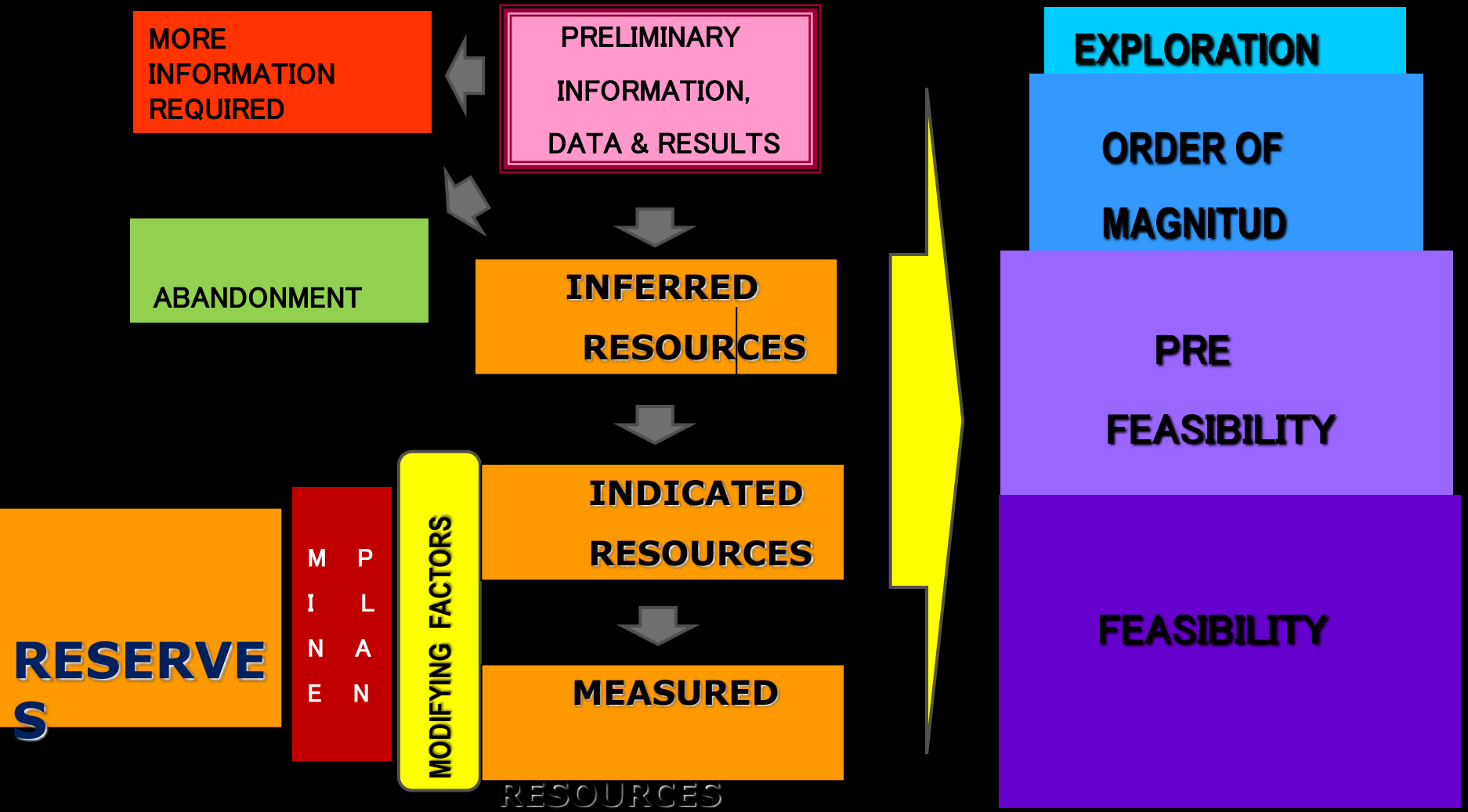
Inclusion of mining, metallurgical, economic, marketing, legal, environmental, infrastructure, social and governmental factors (the "Modifying Factors").

Many professionals (including geologists and other mine-metallurgical-environmental professionals) may be responsible for progression along this axis

# MINERAL RESOURCES AND RESERVES

## INTERNATIONAL REPORTING STANDARDS

### CRIRSCO





# USE OF CRIRSCO STANDARDS

Accepted standards among financial entities: Stock Exchanges,  
Investment Mineral Funds, Mine Project Analysis & Investment  
Approvals, International Financial Reporting Standards

International consensus on reporting standards:

Australia(JORC), Canada (CIM), Chile (COMMiN), Europe (PERC),  
Russia (NAEN), South Africa (SAMREC), USA (SME)

CRIRSCO provides an international forum that enables countries to ensure consistency of their reporting standards in an international setting and to contribute to the development of best practice international reporting.

# CRIRSCO AND UNFC

1997 agreement between CRIRSCO and UNECE re common definitions

2005 CRIRSCO and SPE re-engage with UNECE

2007 mapping CRIRSCO Template, PRMS (Petroleum Resources Management System) , UNFC

2009 mapping was completed.

2011 Template/PRMS officially recognised as commodity-specific codes of the UNFC-2009

# ROLE OF COMPETENT PERSONS

Key professionals for :

- Listing in the Stock Exchange Houses
  - Mine Closures
  - Mine Investment Funds
- Implementation of new international financial reporting standards

# MINERAL RESOURCES AND RESERVES

## INTERNATIONAL REPORTING STANDARDS

*From exploration through mine closure standards for transparent, material, and reliable information will help the mining industry to become better supported, more efficient, less risky.*