

# **Au 97**

## **10<sup>th</sup> International Gold Symposium**

### **Panel**

#### **Evaluation of Mining Properties:**

*Searching for Criteria and Standards*

# **Evaluation of Mining Properties:** *Searching for Criteria and Standards*

## **Panel Participants**

- ◆ **Eduardo Vale** - Director, Bamburra Ltda. (*chair*)
- ◆ **G. R. Appleyard** -Principal, Australian Mining Consultants
- ◆ **Hans Von Michaelis** - President, Randol International Ltd.
- ◆ **Raymond Jannas** - Vice President, Metallica Resources Ltd.
- ◆ **Stephen Fabian** - Director, Black Swan Gold Mines Ltd.

# **Critical Vectors of Concern**

- ❖ **Geological Assurance**
- ❖ **Engineering Conception**
- ❖ **Economics / Financial Modelling**

# **Geological Assurance:**

## *Assumptions and Procedures*

- ➔ **Demonstrated Resources**
- ➔ **Delineated Reserves**
- ➔ **Mineralization Profile**
- ➔ **Continuity of Mineralized Zones**
- ➔ **Method of Sampling**
- ➔ **Density of Sampling**
- ➔ **Assay Methods**
- ➔ **Quality Control and Procedures Adopted**

# **Engineering Conception:**

## *Premises, Parameters and Variables*

- Ore Tonnage
- Stripping Ratio
- Cut-Off Grade Policy
- Minimum Width
- Sequence of Mining
- Mining Method
- Mining Dilution
- Specific Gravity Factor
- Head Grade
- Mining Recovery

# Engineering Conception:

## *Premises, Parameters and Variables*

- Scale
- Schedule
- Environmental Costs
- Mining Dilution
- Specific Gravity Factor
- Mining Recovery

# Engineering Conception:

## *Premises, Parameters and Variables*

- Processing Method
- Processing Recovery
- Capital Costs
- Operational Costs

# Economics and Financial Modeling:

## *Premises, Variables, Expectancies*

- Market
- Price
- Financial Engineering
- Risk Treatment
- Taxation
- Processing Recovery
- Capital Costs
- Operational Costs



# Some Fundamental Questions:

## *Stimulus to Reflection*

- Which dimension - geological assurance, engineering conception, economic / financial modeling - is the most fundamental one?
- Which parameters and variables are critical at each stage level?
- Which attribute (s) qualify a criteria as pertaining to the mining industry array of best practices?

# **Some Fundamental Questions:**

## *Stimulus to Reflection*

- Are there some procedures, techniques and/or methodologies accepted as standards?
  - Considering the diversity of opportunities and the subjectivity that permeates an expressive part of the decision process, does it make sense talk about benchmarking?
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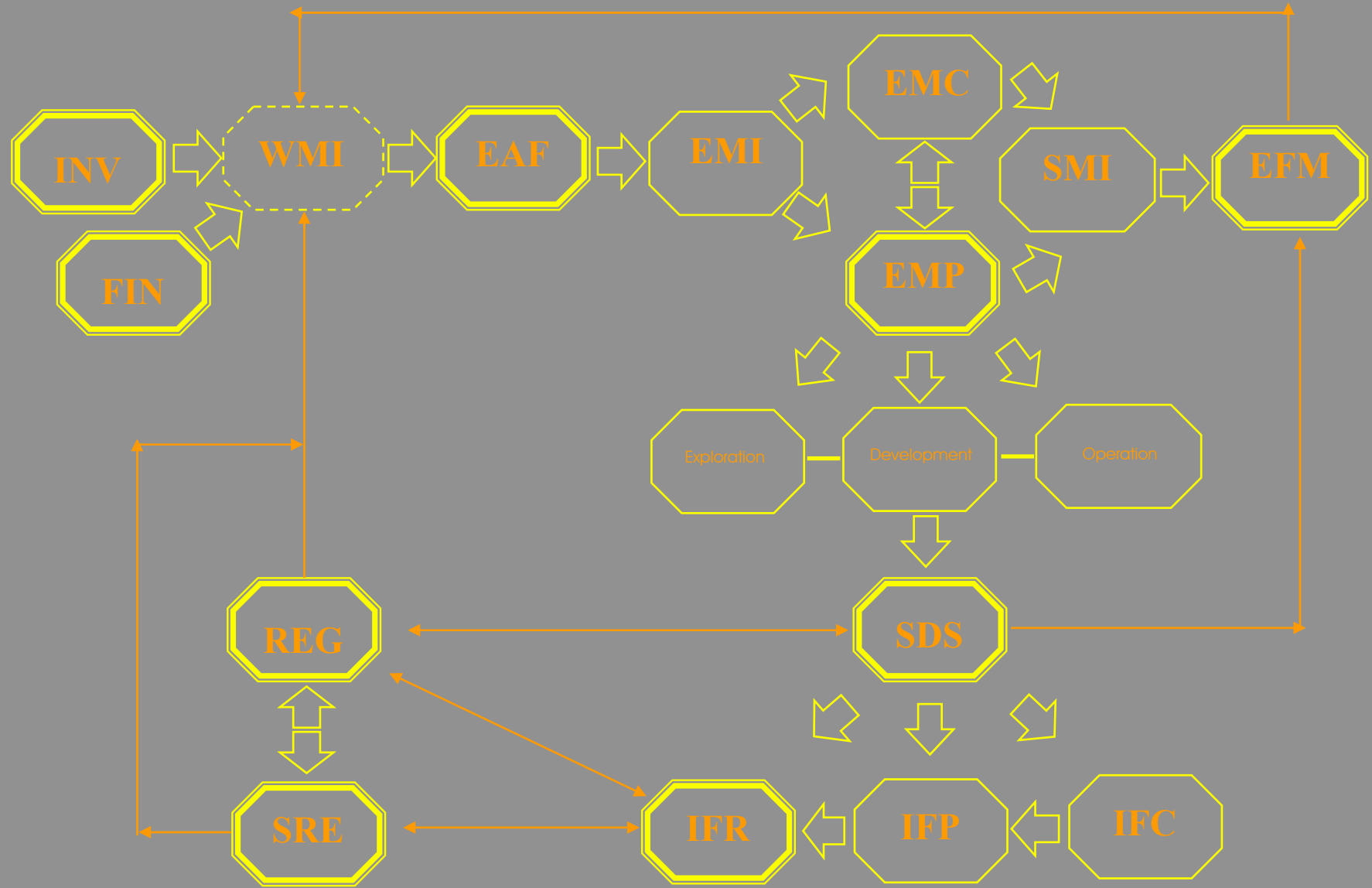
# **Some Fundamental Questions:** *Stimulus to Reflection*

- Which institutions should conduct this assignment in national boundaries?
  - Are international reporting standards desirable?
  - If so, who is the utmost beneficiary?
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# **Some Fundamental Questions:** *Stimulus to Reflection*

- Are international reporting standards feasible?
- If so, in what extension or segments?
- What about the backward effects onto data gathering and data processing stages?

# Relevance of Establishing Standards



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