

# **United Nations Framework Classification for Resources: A Bridge to Better Communication**

**Presented on behalf of the EGRC  
by David MacDonald  
EGRC Bureau Chair  
VP Segment Reserves, BP**

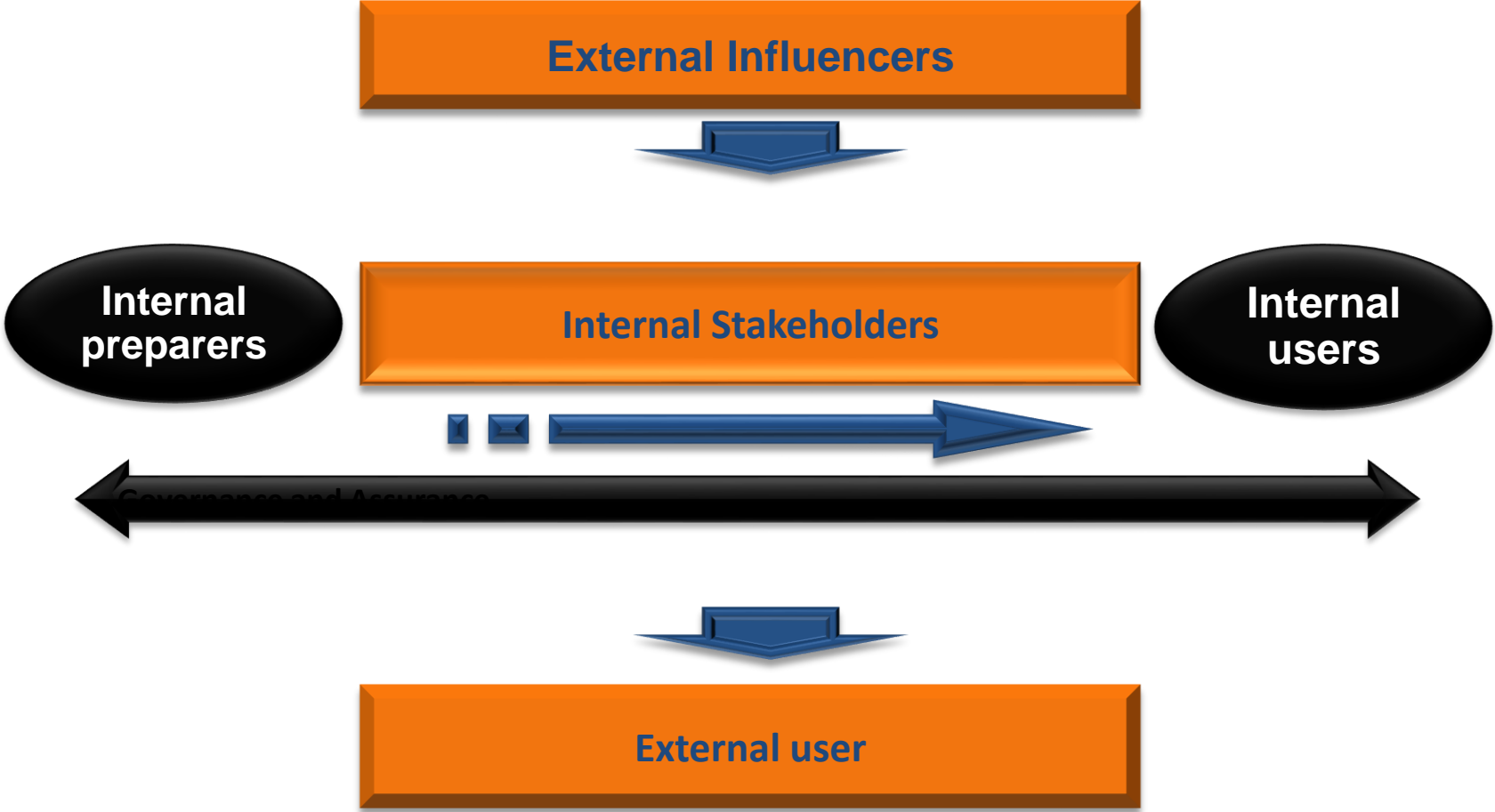
Astana, 13 June 2017



UNITED NATIONS  
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**UNECE**

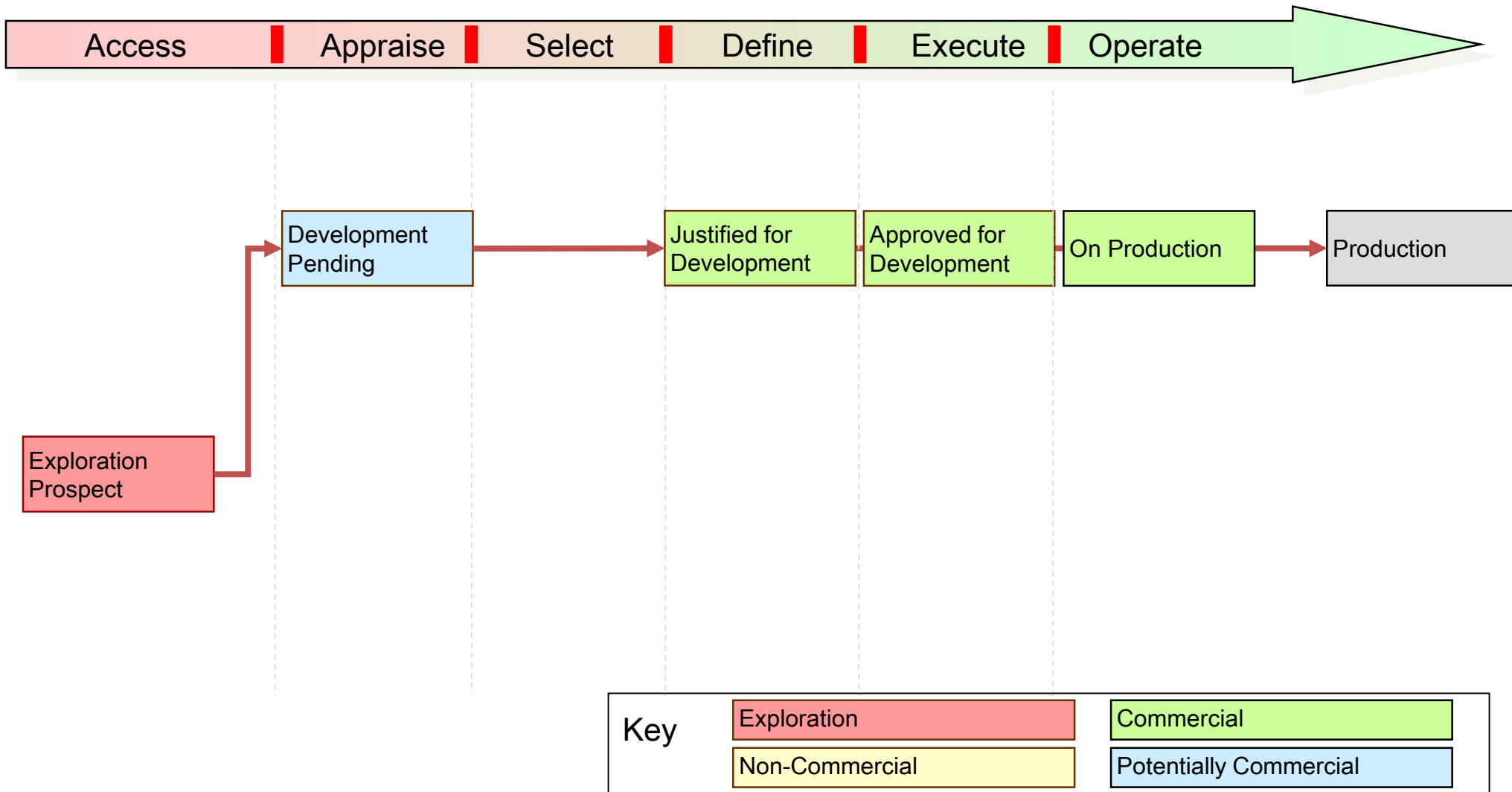
# Stakeholders for Resource Classification



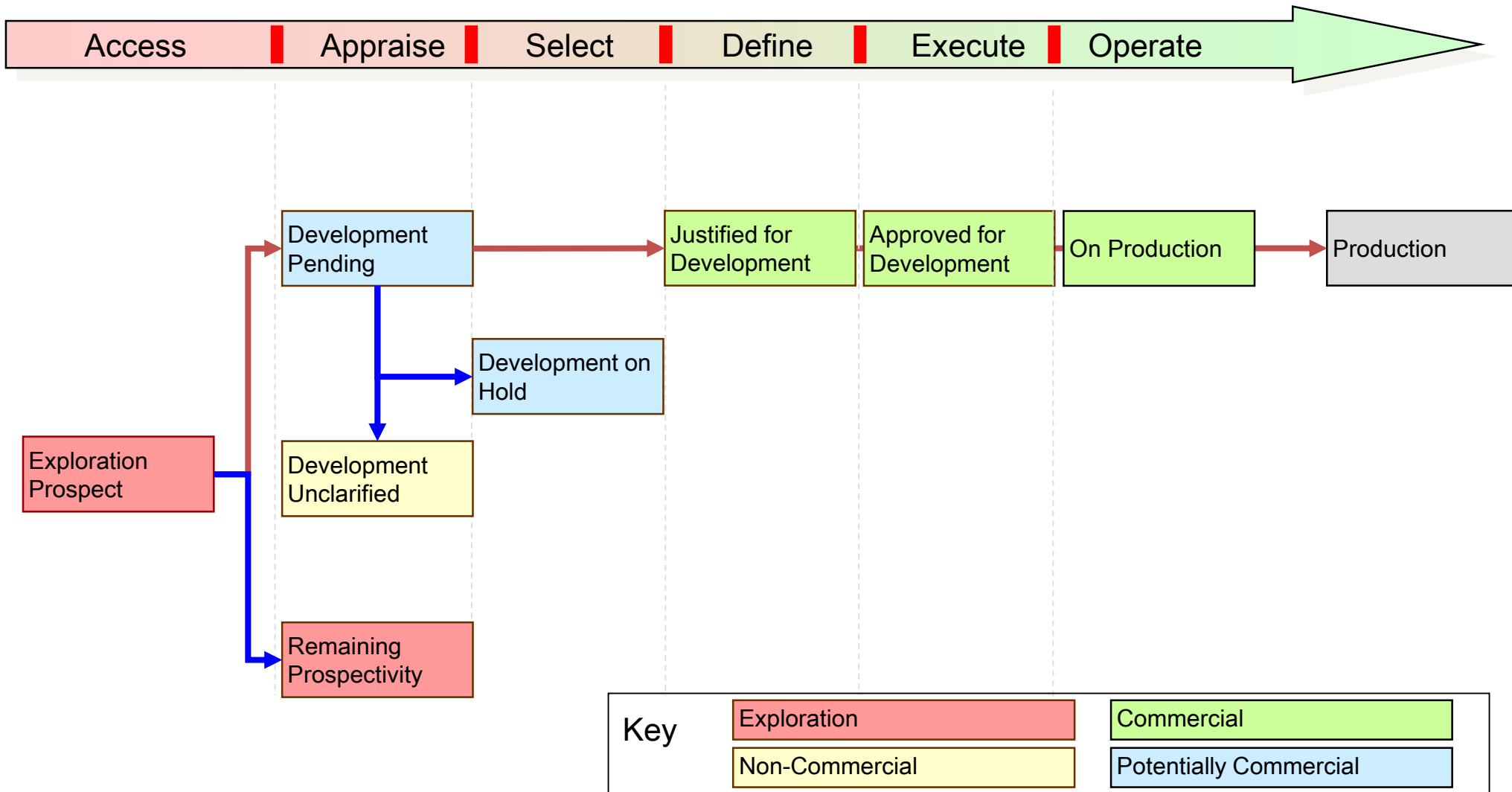
# Diversity in stakeholder characteristics

- Ability to tailor reporting information
  - Range of information available- financial statements or beyond?
- Level of sophistication
  - Sophisticated users
    - » Industry specialists
    - » Use of information as inputs to own analysis using own assumptions
    - » Use of full range of value relevant information
  - Less sophisticated users
    - » Greater reliance on financial statements
- Conflicts between stakeholders?
  - Views on cost/ benefit of information
- View of what is useful information
  
- Is there one ‘answer’ that meets the needs of all users?

# Resource Progression and Project Maturity



# Resource Progression and Project Maturity





**UNFC**

**Classification Framework and Category Definitions**

**Generic Specifications**

***Bridging Document***

***Bridging Document***

***Bridging Document***

**Petroleum Specifications  
PRMS**

**Renewable Energy Specifications  
UNFC**

**Solid Mineral Specifications  
CRIRSCO**

**Other Aligned Systems**

# Why three criteria?

**Project resources must be ...**



**Economic to extract  
(commercially feasible)**



**Geologically well defined  
(with high confidence)**



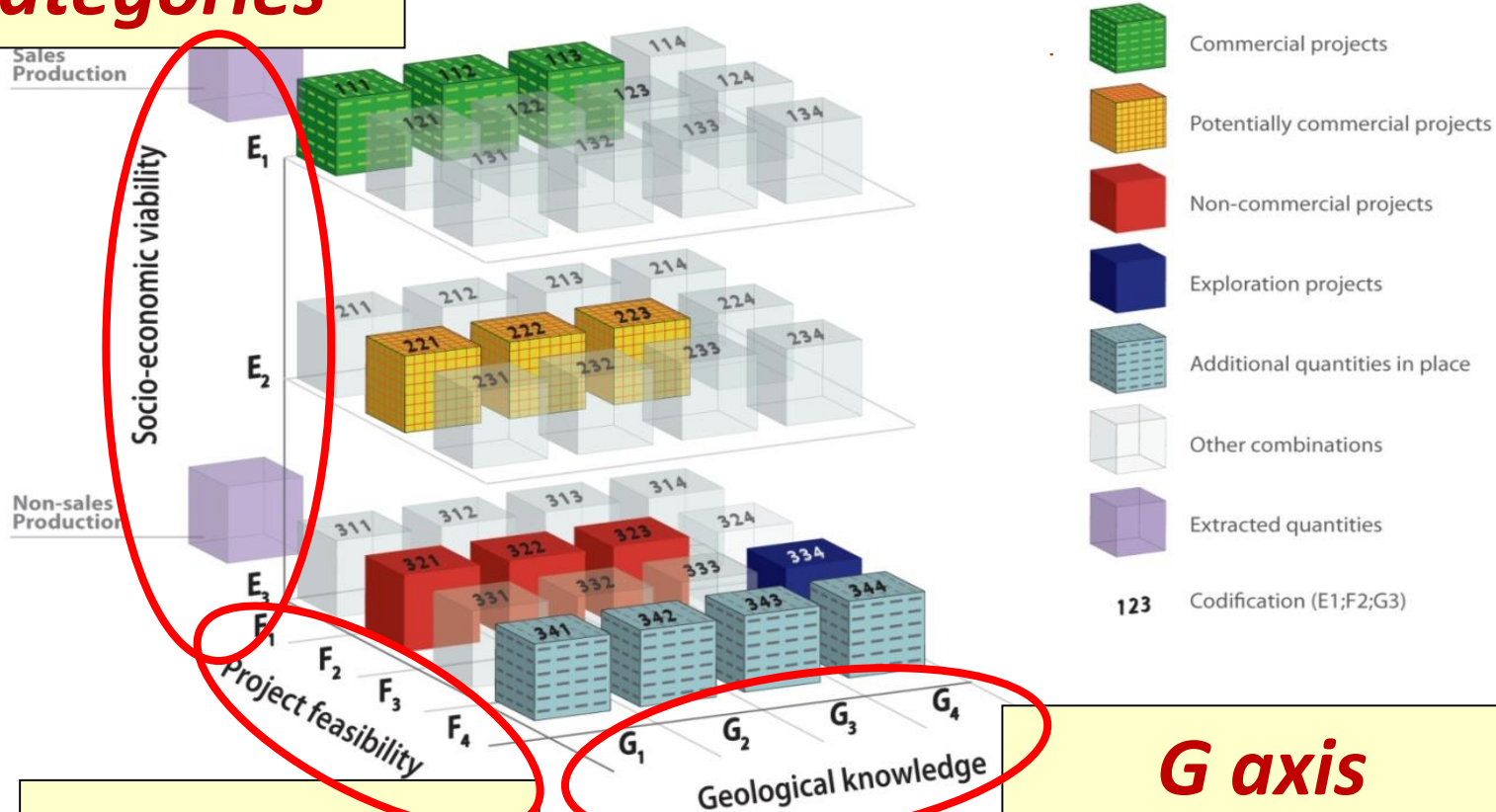
**Technically feasible  
to extract**



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# Categories and Classes ... Codification

***E axis categories***



***F axis categories***

***G axis categories***



# UNFC – E axis

- **Degree of favourability of social and economic conditions in establishing the commercial viability of the project**
- **Key points to consider:**
  - Access & entitlement (who owns the resource?)
  - Market & sales connectivity (can we market the resource?)
  - Social and environmental impact (are we a benefit to the community?)
  - Authorisation & commitment (do we have approvals & investment decision?)
  - Economic viability (does the project meet pass the economic criteria?)



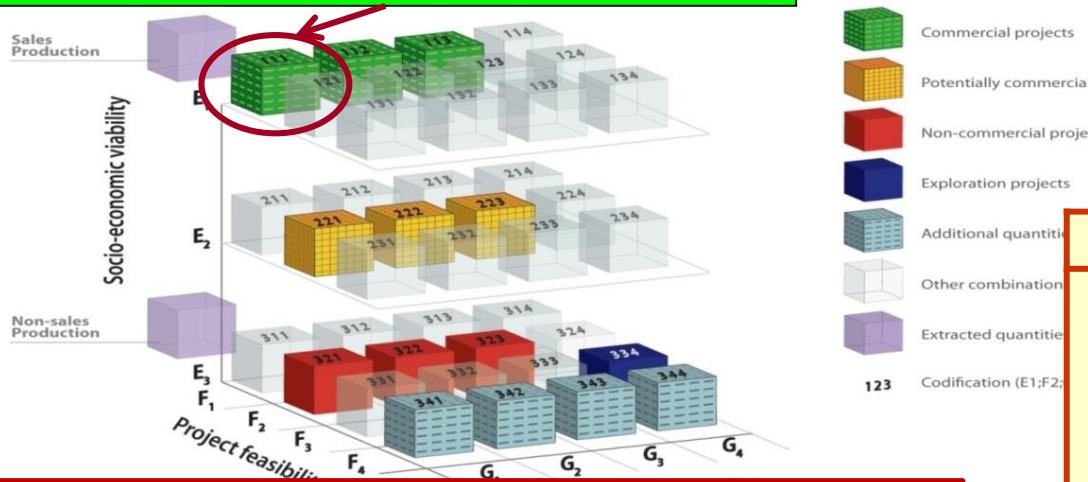
# E axis category definitions

Category	Definition
E1	Extraction and sale has been confirmed to be economically viable.
E2	Extraction and sale is expected to become economically viable in the foreseeable future.
E3	Extraction and sale is not expected to become economically viable in the foreseeable future or evaluation is at too early a stage to determine economic viability.

**The phrase “economically viable” encompasses economic (in the narrow sense) plus other relevant “market conditions”, and includes consideration of prices, costs, legal/fiscal framework, environmental, social and all other non-technical factors that could directly impact the viability of a development project.**

# UNFC – How it works

## UNFC Class: 111



Proved Reserves are those quantities of petroleum, which by analysis of geoscience and engineering data, can be estimated with **reasonable certainty** to be **commercially recoverable**, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations.

Category	Definition
E1	Extraction and sale has been confirmed to be economically viable.

Category	Definition
F1	Feasibility of extraction by a defined development project or mining operation has been confirmed.

Category	Definition
G1	Quantities associated with a known deposit that can be estimated with a high level of confidence.

# In summary ...

- **UNFC-2009 is a generic, principles-based system**
  - Applicable to both solid minerals, fluids and renewable energies
  - Uses a numerical coding system
- **Based on three fundamental criteria**
  - Economic and social/environmental viability
  - Field project status and feasibility
  - Uncertainty, confidence and knowledge of quantities
- **Clear criteria for project maturity**
  - Fits well with business capital value assurance processes