

# **The Road to a United Nations Framework Classification**

## ***Application to Mineral and Fossil Energy Reserves and Resources***

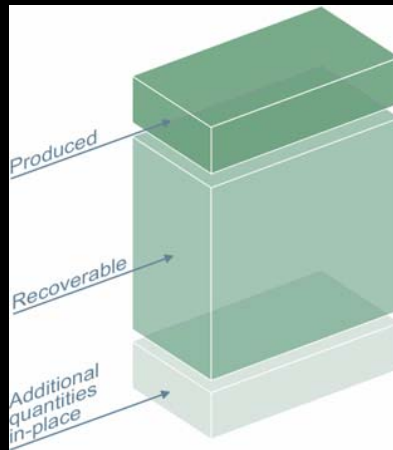
**Charlotte Griffiths, Per Blystad and Sigurd Heiberg**

**UNECE Ad Hoc Group of Experts on  
Harmonization of Fossil Energy and Mineral Resources Terminology**

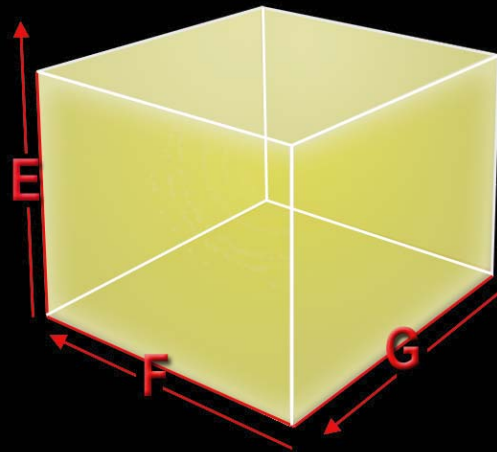
# UN Framework Classification (UNFC) for Petroleum



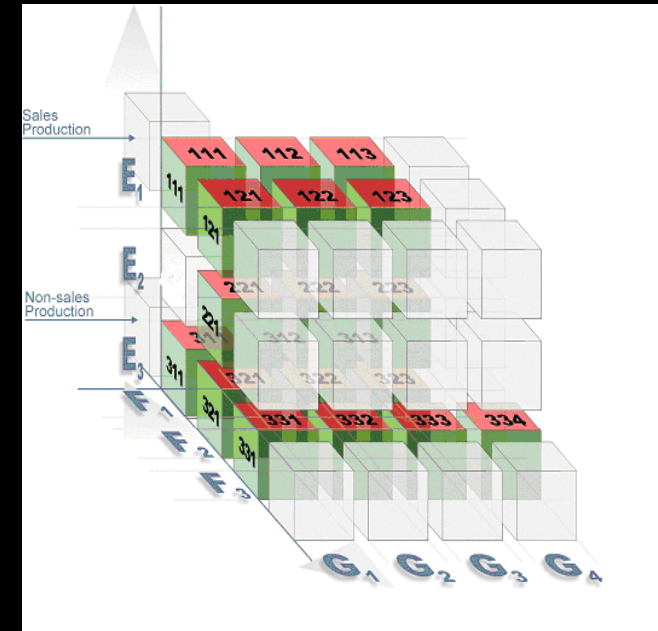
## Total in-place



## Principles



## Classification



### Economic and commercial viability

- ◆ E1 Economic
- ◆ E2 Potentially economic
- ◆ E3 Intrinsically economic

### Field project status and feasibility

- ◆ F1 Justified
- ◆ F2 Contingent
- ◆ F3 Undefined

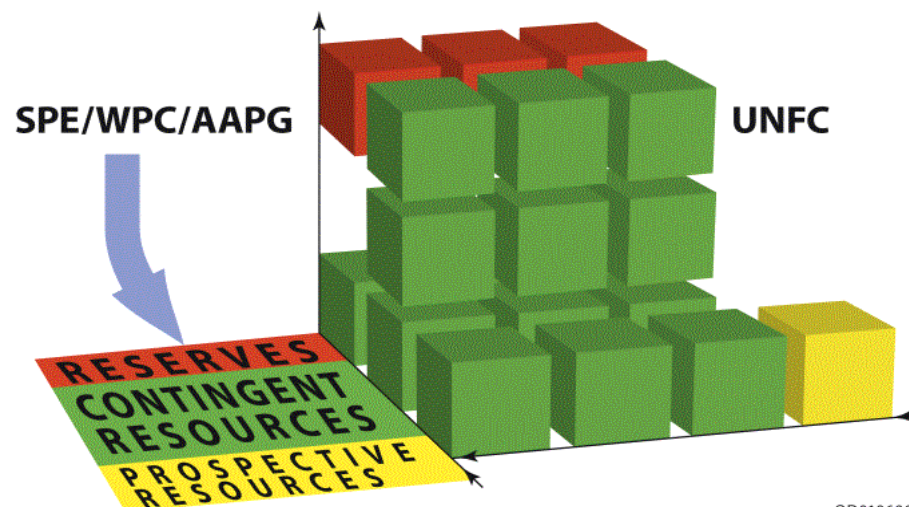
### Geological knowledge

- ◆ G1 Reasonably assured
- ◆ G2 Estimated
- ◆ G3 Inferred
- ◆ G4 Potential

# UNFC and the SPE/WPC/AAPG

**SPE/WPC/AAPG**  
**Resource classification system**  
 (showing possible Project Status Categories)

		Production			Project Status		
Total petroleum - Initially - In-place	Discovered petroleum - Initially - In-place Commercial	Reserves	Proved	Proved plus Probable	Proved plus Probable plus Possible	On production	Lower risk
			Under development	Development pending	Development on hold		
			Planned for development				
	Discovered petroleum - Sub-commercial	Contingent resources	Low estimate	Best estimate	High estimate	Development not viable	Project maturity ↑
			Unrecoverable				
			Undiscovered petroleum - Initially - In-place	Prospective resources	Low estimate	Best estimate	
Unrecoverable							
Lead	Play						
		Unrecoverable					
		← Range of uncertainty →					

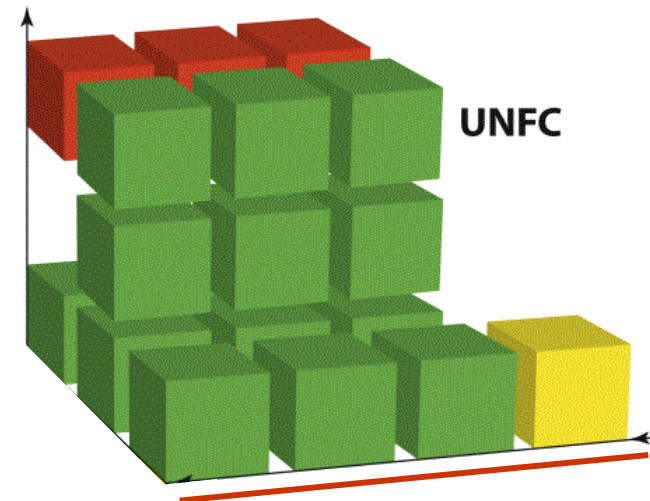
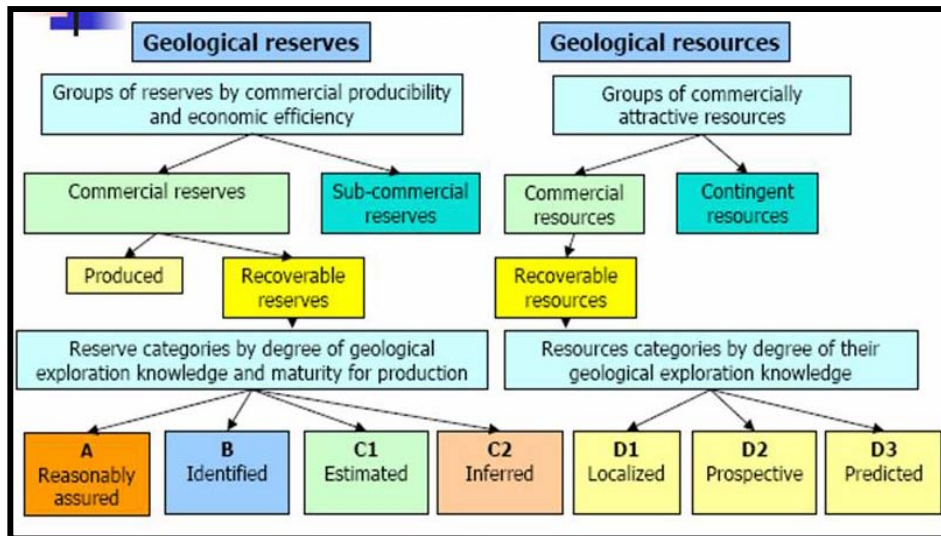


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# UNFC and the Russian Federation Classification Scheme



## Russian Federation Classification Scheme



## What is the UNFC?

- **United Nations Framework Classification for Fossil Energy and Mineral Resources**
- **A framework to harmonize existing terminologies and definitions worldwide**
- **Incorporates the principal criteria recurring in classifications: Economic viability, project maturity and knowledge of the geological endowment.**
- **Simple, universally applicable scheme for classifying and evaluating energy and mineral reserves and resources.**
- **Allows a common and necessary international understanding.**
- **A flexible system for application at global, national, industrial, institutional or financial level.**

# History of UNFC

- **UN Framework Classification for Solid Fuels and Mineral Commodities first initiated in 1992.**
- **Substantial work on the system by a UN Task Force in period 1992-1997.**
- **UN ECOSOC recommended all UN Members to use the system in 1997. Now used successfully or tested in more than 60 countries.**
- **In 2001, UNECE Committee on Sustainable Energy created an Ad Hoc Group of Experts (AHGE) to extend the principles of the UNFC to other energy resources (oil, natural gas and uranium).**

## **History of UNFC *continued***

- **AHGE worked intensively with design of the system and harmonization with other systems during 2002-2004.**
- **UN Framework Classification for Fossil Energy and Mineral Resources established.**
- **ECOSOC recommended use of the system worldwide in resolution 233/2004.**
- **UNECE Committee on Sustainable Energy requests AHGE should continue its work**
  - **Cooperate with relevant institutions**
  - **Promote the practical implementation**
  - **Issue guidelines**

## **Why one common global code for energy and mineral resources?**

- **Global markets need global standards.**
- **Efficient markets need strong standards.**
- **The capital market became global after 1980.**
- **Global commodity markets are consolidating**
  - **The oil market is global. The gas market will follow soon.**

## Why UNFC?

- **Enhance international communication.**
- **Support business processes and improve efficiency of resource management.**
- **Facilitate international financial reporting.**
- **Enhance the security of energy supplies and of the associated financial resources.**
- **Assist countries with transition economies in reassessing their resources, and so make them more available at affordable costs through use of the international markets.**

## **Why UN?**

### **What are the options...**

- Standard produced by ISO?**
- Standard produced by security regulators?**
- One standard produced by several professional organizations in concert?**
- A global framework classification maintained with support of the United Nations?**

## **Potential for success of UNFC?**

- **Key to global adoption of UNFC lies in efficiencies offered to stakeholders through new global markets with strong global standards.**
- **Transparent and voluntary process.**
- **Ongoing, open dialogue with all stakeholders.**

## **Potential for success of UNFC? *continued***

- **Wide range of stakeholders offer UN strong and constructive support to date and this is growing:**
  - **Governments, including G7 Ministers of Finance and Governors of Central Banks, NGOs and business community/private sector.**
  - **International organizations, incl. IAEA, IEA, IEF, OPEC, WEC, and WPC.**
  - **Professional associations, incl AAPG, CRIRSCO, EFG, IASB, IOSCO, IVSC and SPE.**

## **Collaboration with Financial Community**

- **Common code is needed by the financial community for acceptance and use in the global capital market. A change in international financial reporting for extractive activities is currently being prepared.**
- **IASB research for an International Financial Reporting Standard for extractive activities. International Organisation of Securities Commissions (including US SEC) and UNECE AHGE dialogue to help guide the research.**
- **Agreement between IASB and US SEC to harmonize their rules.**

# **From closing address of the 18th WPC by World Petroleum Council President**

Johannesburg, SA. 29.10.2005



**... For some time WPC/SPE/AAPG has focused on a code for classification of reserves. This is reinforced under UN auspices (UN Framework Classification for Fossil Energy and Mineral Resources), supported by WPC. It is important that such a standard be employed universally and preferably also by the international accounting standards community. This is central for consistent and uniform reporting from both business and government...**

# **Statement by G7 Finance Ministers and Central Bank Governors, London, 2-3 December 2005**

**...We reviewed the steps taken since our last meeting to improve stability of the oil market and the global energy outlook, and our enhanced dialogue with oil producers. Significant investment is needed in exploration, production, energy infrastructure, and refinery capacity. We welcome the launch of the Joint Oil Data Initiative (JODI) database and stress the need to improve further the transparency of demand and supply data in the oil market, including through development of a global common standard for reporting oil reserves....**

## **Statement from the General Director, Commission on Mineral Resources, Russian Federation**

**...It is important that governments of the UNECE member countries take adequate measures for ensuring the worldwide application of the UNFC (following the ECOSOC Resolution 2004/233)....**

**November 2005**

# Report from the Ad Hoc Group of Experts on Harmonization of Energy Reserves and Resources Terminology

# **Work programme**

## **November 2004 - November 2005**

- **Make the UNFC known in environments of importance as the powerful code that it is,**
- **Develop a strong consensus for the need for one common code for fossil energy and mineral resources.**
- **Begin the formulation of specifications and guidelines under the UNFC and formulate terms of reference for work under possible UN Trust fund finance in this respect**
- **Develop a basis for providing international service to UN member countries and other stakeholders facilitating application of a common code world wide, and provide such service to the extent possible UN Trust Fund financial resources can be made available.**

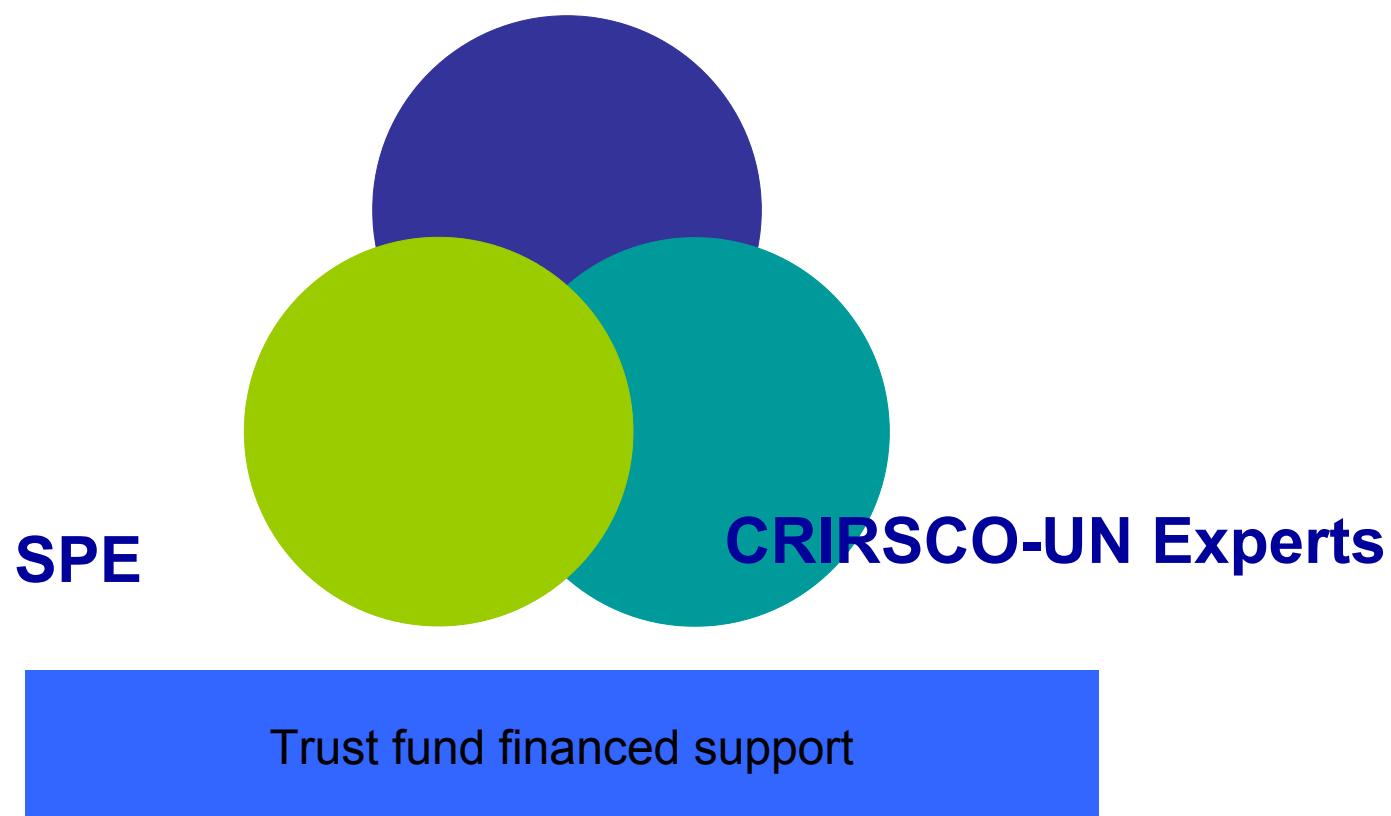
# UNFC Activities in 2005



- **22+ presentations World Wide**
- **Consensus for one common code for fossil energy and mineral resource**
- **Discussed formulation of specifications and guidelines under the UNFC with the professional organizations**
  - **SPE** (for petroleum)
  - **CRIRSCO** (for coal, uranium and minerals)
- **Discussed to formulate terms of reference for work under UN Trust fund finance for support to UN member countries and other stakeholders facilitating application of a common code World Wide**
- **Informal discussion meetings with stakeholders**
  - **IEA, OPEC, IEF**
  - **IEA, OPEC, IEF, SPE, CRIRSCO, WEC, IAEA,.....more..**

# UNFC Governing Structure

## Ad Hoc Group – Main Group



# **AHGE Terms of reference – main objectives**

- **Continue developing the harmonization code of the UNFC.**
- **Ensure that the development of a harmonization code be based upon cooperation with recognized industry professional societies by use of the framework facility provided by the UNFC**
- **Facilitate development of Specifications and Guidelines to the UNFC, through the cooperation with the Society of Petroleum Engineers (SPE) for petroleum and the Combined Reserves International Reporting Standards Committee (CRIRSCO) for coal, uranium and minerals**
- **Encourage the development of education programmed on the UNFC**
- **Invite and facilitate development of case studies on voluntary basis**
- **Seek to strenghten inter-agency cooperation and to cooperate and collaborate with all stakeholders**

# Status for Specifications and Guidelines under UNFC

- **Coal, uranium and minerals**
  - Existing guidelines to be updated.
  - Specifications and additional guidelines to be developed
- **Petroleum**
  - None existing.
- **SPE and CRIRSCO presented how they would develop the specifications and guidelines under the UNFC**

## **Case studies**

- **Case studies regarded as vital for application of the UNFC**
- **Many Case studies undertaken for the coal, uranium and minerals**
- **Only a few case studies undertaken for petroleum**
- **The meeting stressed the need for close coordination between the development of the UNFC specifications, guidelines and the case studies.**
- **Case studies are voluntary, however countries were encouraged to carry out case studies.**

# Recommendations

Agreed on its revised Terms of Reference which provide a new name, mandate and objectives for the Ad Hoc Group (see Annex 1);

**UNECE AD HOC GROUP OF EXPERTS ON  
HARMONIZATION OF FOSSIL ENERGY AND MINERAL  
RESOURCES TERMINOLOGY**

Agreed that the structure and status of the Ad Hoc Group is adequate for the immediate needs of developing the UNFC specifications, guidelines and case studies;

Further agreed that two Task Forces, one for petroleum (oil and gas) and one for coal, uranium and other minerals, should be established to develop a harmonized code by use of the framework facility of the UNFC including specifications and guidelines required to meet international needs;

Welcomed with appreciation the proposal of the Society of Petroleum Engineers (SPE) to serve as the Ad Hoc Group of Experts Task Force for Petroleum;

Welcomed with appreciation the agreement of the Executive Committee of the Combined Reserves International Reporting Standards Committee (CRIRSCO) to serve as the Task Force on Coal and Mineral Resources, together with other members of the Ad Hoc Group of Experts;

Decided to enlarge the Bureau of the Ad Hoc Group of Experts to include representatives of the SPE and the CRIRSCO;

# Recommendations ctnd.

**Agreed that the Bureau review its possible enlargement and accept additional Bureau members if warranted to adequately reflect the principle applications of the harmonized code in:**

- energy studies,**
- resources management,**
- corporate business processes and**
- financial standards;**

**Requested the Bureau to consider the future status (beyond 2006) of the Ad Hoc Group of Experts in view of ECOSOC Resolution 2004/233 inviting international application of the UNFC and in light of the requirement for the long term reliability of its implementation;**

**Agreed that, on a voluntary basis, financial support could be provided by interested members for activities of the Ad Hoc Group of Experts;**

**Requested the Bureau to determine the needs for financial support and the modalities of applying this to selected activities.**

# Maximising Reserves

Requires:

- Long sighted strategies,
- Excellence in communication, technology, management
- Industrial and financial capacity
- Quality partnership

# Thank you!

# Reserves: Committed and uncommitted

