



# UNFC-2009

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Expert Group on Resource Classification, First Session

Jim Ross, Ross Petroleum  
Michael D Lynch-Bell, Ernst & Young LLP  
Charlotte Griffiths, UNECE

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United Nations  
Expert Group on Resource Classification

# UN Economic Commission for Europe

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- ▶ **Economic and Social Council, 54 UN members**
- ▶ **Five UN Regional Commissions**
- ▶ **UNECE: Europe, CIS, North America, Turkey & Israel**
- ▶ **Based in Geneva, 56 Governments**
- ▶ **Mission to foster sustained economic growth and cooperation among member countries**
- ▶ **Assist countries with transition and developing economies**
- ▶ **Nine key programmes: economic cooperation & integration, environmental policy, housing & land management, statistics, sustainable energy, technical cooperation, timber, trade and transport**

# Where does Expert Group fit in the UN System?



# United Nations Framework Classification

# THE UNFC, what is it?

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- ▶ Umbrella System:
  - ▶ Internationally applicable
  - ▶ Internationally acceptable
- ▶ Harmonisation – terminology and definitions
- ▶ Uses numerical codification system
- ▶ Applies to fossil energy and mineral reserves and resources

# THE UNFC, who for?

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- ▶ Energy and mineral studies
- ▶ Resources management functions
- ▶ Corporate business processes
- ▶ Financial reporting standards

# UNFC, how did we get here?

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- ▶ 1992 – Initiated 1st Version
- ▶ 1997 – 1st Version published
- ▶ 2001 – AHGE formed
- ▶ 2004 – Extended
  - ▶ Oil, Natural Gas & Uranium
  - ▶ ECOSOC Resolution 2004/233

# UNFC, how did we get here?

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- ▶ 2005 – Collaboration with SPE/CRIRSCO
- ▶ 2007 – Mapping Task Force/IASB
- ▶ 2008 – Agreement to assess UNFC 2004 for revision
- ▶ 2008 – New Version released for comment
- ▶ 2009 – AHGE March 2009
  - AHGE October 2009
  - Committee on Sustainable Energy, November 2009



# What's been changing?

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- ▶ 2005 – New Russian Classification
- ▶ 2006 – Revised CRIRSCO template
- ▶ 2007 – SPE PRMS
- ▶ 2008 – Revised SEC Oil & Gas Definitions
- ▶ 2007 – Updated Canadian Oil & Gas handbook
- ▶ etc

# UNFC-2009 process and 7th Session

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- ▶ UNFC Revision Task Force prepared three documents for 7th Session:
  - Revised UNFC-2009
  - Comprehensive Report detailing UNFC revision process: - identifies and discusses 44 individual issues
  - Discussion paper on need and/or desirability to develop specifications (rules) and guidelines (best practice) for UNFC
- ▶ Discussion paper on options for future governance of UNFC prepared by secretariat for 7th Session
- ▶ Report on IASB extractive industries project

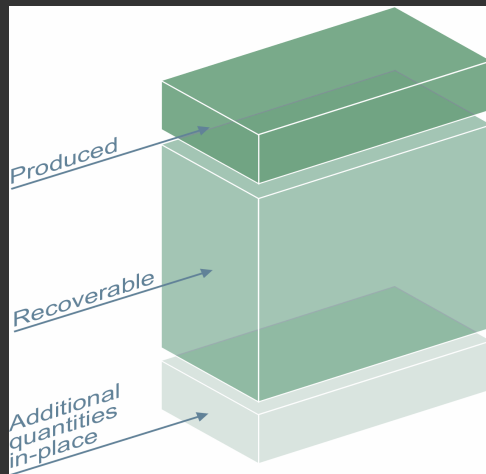
# UNFC-2009, Expert Group and Committee on Sustainable Energy

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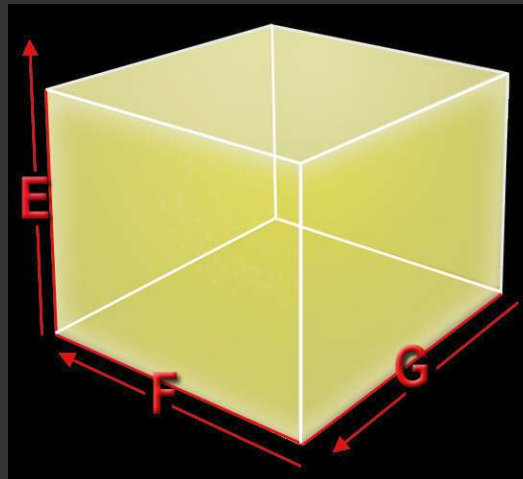
- ▶ ECOSOC Resolution 2004/233 – consistent with
  - UNFC-2009 simplified, generic and user-friendly
- ▶ Recommend UNFC-2009 be adopted now
  - Testing and roll-out of UNFC-2009 needed, proposed feedback period every two years
- ▶ Recommend to drop ‘ad hoc’ and change name to Expert Group on Resource Classification
- ▶ Current two year mandate expires end 2009. Agreed five year mandate to 2014
- ▶ Agreed slightly revised Terms of Reference for Expert Group on Resource Classification

# UN Framework Classification for petroleum

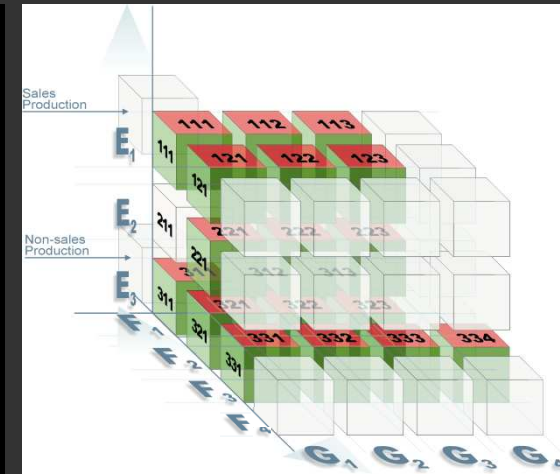
## Total in-place



## Principles



## Classification



### Economic and commercial viability

- E1 Confirmed to be economic
- E2 Expected to become economic
- E3 Not expected to become economic

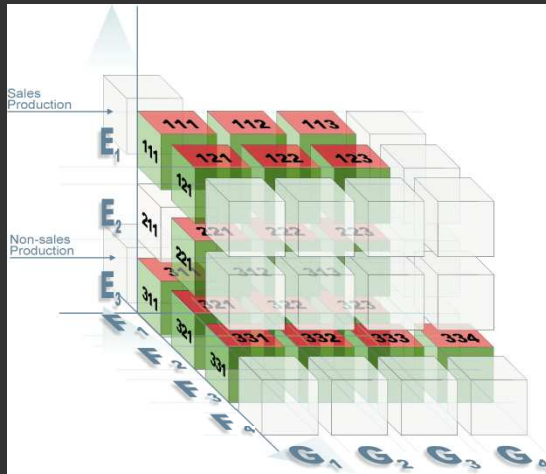
### Field project status and feasibility

- F1 Feasibility confirmed
- F2 Feasibility under evaluation
- F3 Feasibility not known
- F4 No project identified

### Geological knowledge

- G1 High confidence
- G2 Moderate confidence
- G3 Low confidence
- G4 Potential accumulation

# UNFC-2009



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.

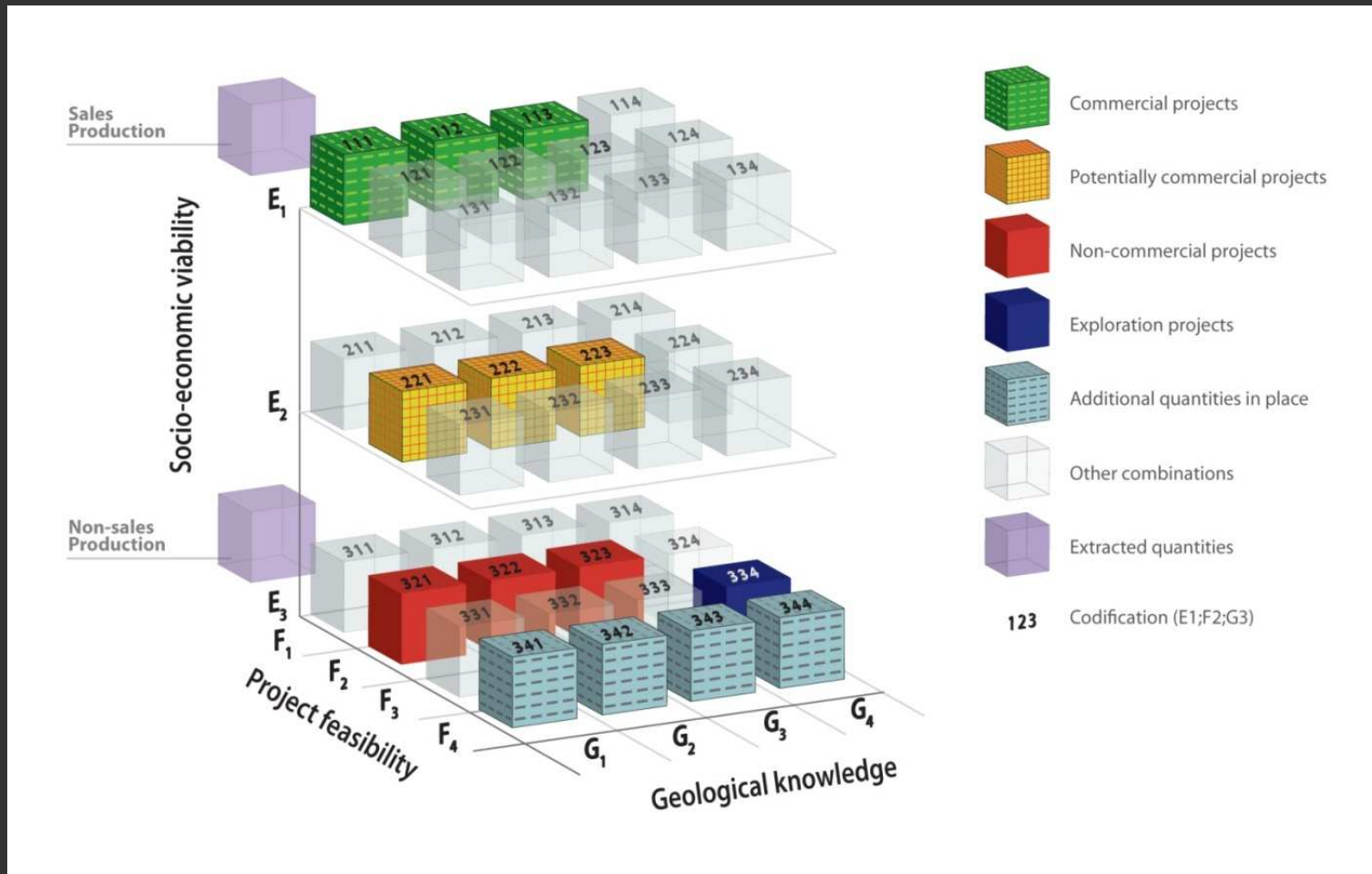
Category	Definition
G1	Quantities associated with a known deposit that can be estimated with a high level of confidence.

**UNFC Class: 111**

# UNFC-2009 – Categories and sub-categories

Axis	Criteria	Categories	Sub-categories
E-axis	Economic and social viability	E1	E1.1, E1.2
		E2	
		E3	E3.1, E3.2, E3.3
F-axis	Field project status and feasibility	F1	F1.1, F1.2, F1.3
		F2	F2.1, F2.2, F2.3
		F3	
		F4	
G-axis	Geological knowledge	G1	
		G2	
		G3	
		G4	

# UNFC-2009 – Examples of classes



# UNFC-2009 – Based on categories only

Total commodity initially in place	Extracted	Sales Production		
		Non-sales Production		
	Class	Categories		
		E	F	G
Future recovery by commercial development projects or mining operations	Commercial Projects	1	1	1, 2, 3
Potential future recovery by contingent development projects or mining operations	Potentially Commercial Projects	2	2	1, 2, 3
	Non-Commercial Projects	3	2	1, 2, 3
Additional quantities in place associated with known deposits		3	4	1, 2, 3
Potential future recovery by successful exploration activities	Exploration Projects	3	3	4
Additional quantities in place associated with potential deposits		3	4	4



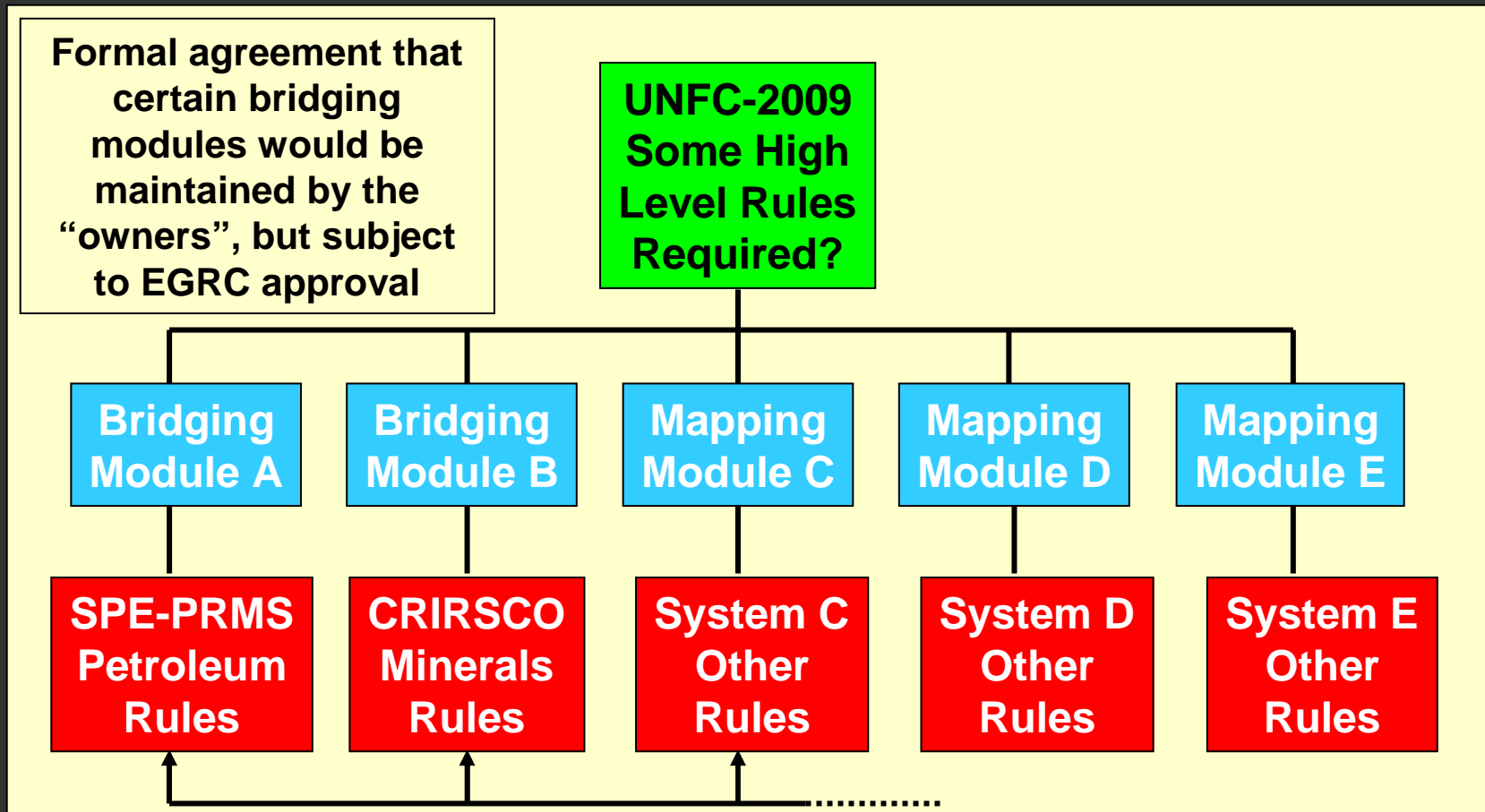
# UNFC-2009 – Including all sub-categories

UNFC Classes defined by categories and sub-categories						
	Extracted	Sales Production				
		Non-sales Production				
Total commodity initially in place	Class	Sub-class	Categories			
			E	F	G	
	Known Deposit	Commercial Projects	On Production	1	1.1	1, 2, 3
			Approved for Development	1	1.2	1, 2, 3
			Justified for Development	1	1.3	1, 2, 3
		Potentially Commercial Projects	Development Pending	2	2.1	1, 2, 3
			Development On Hold	2	2.2	1, 2, 3
		Non-Commercial Projects	Development Unclarified	3.2	2.2	1, 2, 3
			Development Not Viable	3.3	2.3	1, 2, 3
	Additional quantities in place			3.3	4	1, 2, 3
Potential Deposit	Exploration Projects	[No sub-classes defined]	3.2	3	4	
	Additional quantities in place			3.3	4	4

# UNFC-2009 – Alignment with other systems

	UNFC-2009		CRIRSCO (minerals)	SPE-PRMS (petroleum)	
Known Deposit	Commercial Projects	On Production	Mineral Reserves	Reserves	On Production
		Approved for Development			Approved for Development
		Justified for Development			Justified for Development
	Potentially Commercial Projects	Development Pending	Mineral Resources	Contingent Resources	Development Pending
		Development On Hold			Development Unclassified or On Hold
	Non-Commercial Projects	Development Unclassified	Not Defined		Development Not Viable
		Development Not Viable			
Additional quantities in place		Not Defined	Unrecoverable		
Potential Deposit	Exploration Projects		Exploration Results	Prospective Resources	Prospect
					Lead
					Play
	Additional quantities in place		Not Defined	Unrecoverable	

# UNFC-2009 – A proposal for integration



# EGRC Programme of Work 2009-2010

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- ▶ Identify needs of stakeholders for specifications under UNFC
- ▶ Consider the development of specifications and guidelines in collaboration with SPE and CRIRSCO
- ▶ Facilitate mapping of other classification systems to UNFC-2009
- ▶ Testing of UNFC-2009 by Expert Group
- ▶ Support IASB Extractive Activities Research Project
- ▶ Explore how UNFC could be used in classifying injection projects
- ▶ Education and outreach: conferences
- ▶ UNFC Workshops, Almaty, December 2009; Warsaw, June 2010; and Ankara, November/December 2010

# Convergence

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SEC  
IASB

# Stakeholders

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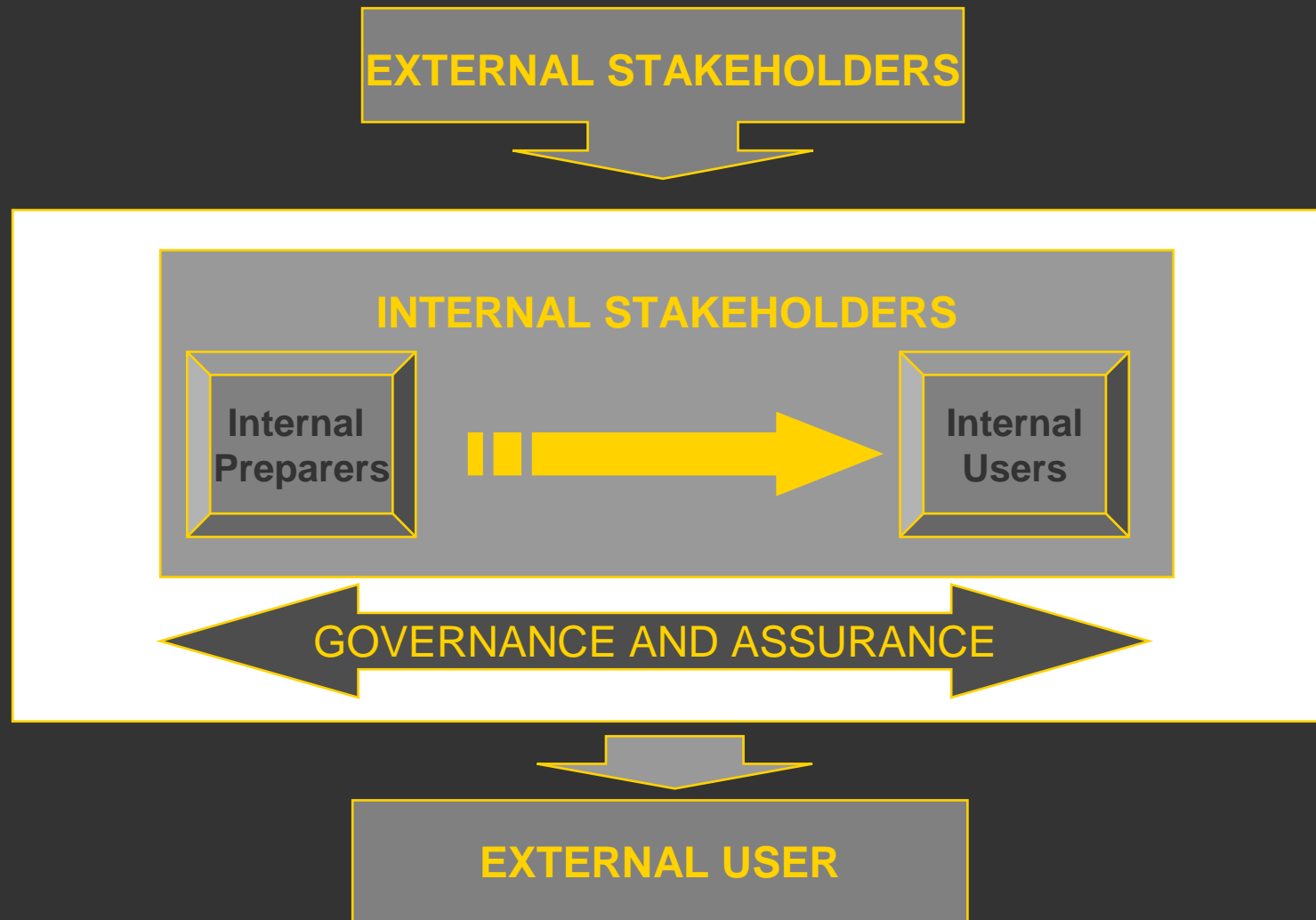
## Diversity in stakeholders and their characteristics

- ▶ Demonstrated by parties responding to consultation papers (eg SEC and IASB)

## Internal and external

- ▶ Characteristics and priorities
  - ▶ Users versus preparers
  - ▶ Level of sophistication
  - ▶ View of cost/benefit
- ▶ Conflicts between stakeholder interests
- ▶ Influence on future reserves measurement, reporting and use

# Interaction of stakeholders



# Internal stakeholders

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## Preparers

- ▶ Technical specialists
- ▶ Project managers
- ▶ Partners

## Users

- ▶ Management
  - ▶ Strategic planning, forecasting and budgeting
  - ▶ Performance management and compensation awards
  - ▶ Investment decisions- internal & external
- ▶ Preparers of reporting
- ▶ Board, Audit Committee
- ▶ Partners



# External stakeholders

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## Influencers

- ▶ Standard setting bodies (IASB, FASB, SEC etc)

## Users

- ▶ Investor community
- ▶ Lenders
- ▶ Competitors
- ▶ M&A
- ▶ Government/ public interest bodies
- ▶ Technical consultants
- ▶ Accounting profession
- ▶ Interested public

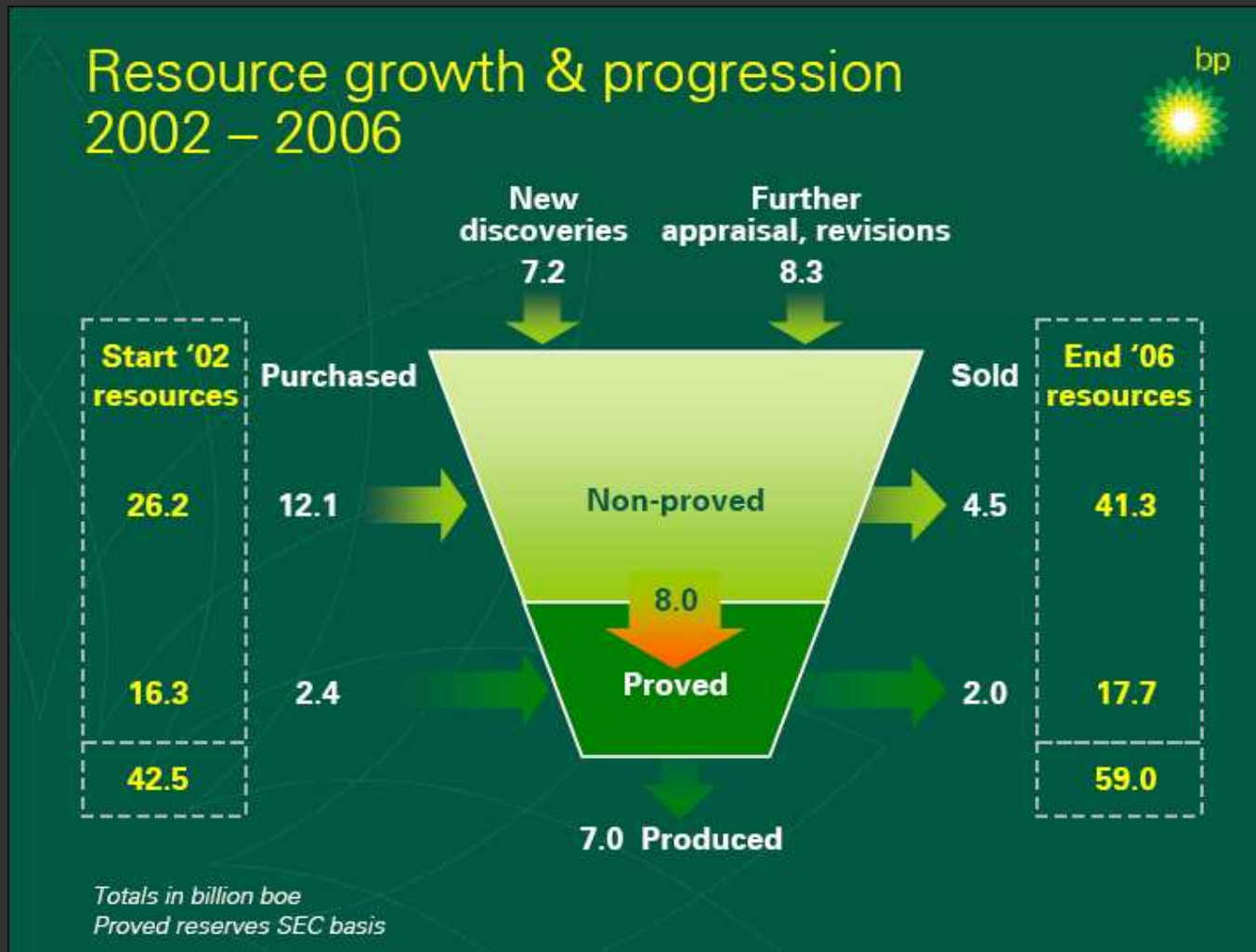
# Useful information?

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## Do published reserves and resources information reflect management's decision making process?

- ▶ Published information likely to be different to management's view
  - ▶ Often not the full resource base/potential
  - ▶ Different assumptions (price/discount rate)
  - ▶ Optimistic view?
- ▶ May in turn be different to an investor's view
  - ▶ Different views on risk (e.g. country, technical)
  - ▶ Different views on sources of value (e.g. portfolio fit)

# BP resources



Extract from BP Full Year 2006 Results and Strategy Update

# Net assets and market capitalisation (O&G)

	Net Assets 31 December 2009 \$m	Market Capitalisation 4 March 2010 \$m
Total	76,733	132,772
BP	102,113	171,420
Shell	138,135	172,419
Exxon	115,392	308,771
Chevron	91,914	146,770

Sources: Market capitalisation – Thomson Datastream; Net Assets – preliminary results announcements. Total's results converted from Euros at 31.12.09.

# Conclusions

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- ▶ UNFC is a long-term activity, with significant and varied global stakeholder support
- ▶ Umbrella System:
  - ▶ Internationally applicable
  - ▶ Internationally acceptable
- ▶ Harmonisation – terminology and definitions
- ▶ Uses numerical codification system
- ▶ Applies to fossil energy and mineral reserves and resources
- ▶ Going forward specifications and guidelines and testing is key

# Disclaimer

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**Thank you**

EXPERT GROUP ON RESOURCE  
CLASSIFICATION

[www.unece.org/energy/se/reserves.html](http://www.unece.org/energy/se/reserves.html)

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