

## **Petroleum Project Economics & Risk Management** **(Delivered via Remote Instructor Led Training)**

### **Course Objectives**

During this 5 day online course participants will learn to apply a structured approach to project justification, investment appraisal and decision making in the upstream petroleum business. This is underpinned with instruction of the principles and methodology related to petroleum economics and risk management.

### **What Will You Learn**

The concepts of petroleum economics and an appreciation of the treatment of risk associated with petroleum ventures.

- Apply economic and risk management evaluation tools for oil & gas project proposals
- Identify and quantify key uncertainties during field development and full life cycle economics
- Calculate the economic and financial viability of expenditure proposals projects under risk conditions
- Develop a structured approach to measuring, managing and combating commercial risk
- Assess the ranking of alternative projects
- Improve project and business outcomes

### **Who Should Attend**

This introductory to intermediate level workshop is aimed at those with little or no previous project investment appraisal experience. Recent attendees who have benefited from this training include:

- Explorationists and petroleum/reservoir engineers
- Asset managers, project managers and facilities engineers
- Information systems managers and project leaders
- Management accountants, finance and contracts specialists
- Government and advisory executives
- Service/supplier company staff

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### **Training Method**

This course content has been designed to be delivered via a live Remote Instructor Led platform and consists of 10 modules delivered over 5 days. It is a highly participative course using an evolving industry specific case study to help re-enforce the key learning outcomes. Access to MS Excel is required and prior knowledge of basic spreadsheet techniques is assumed. At the end of the course you will be able to retain an electronic copy of the project examples created during the course, these are designed to be a helpful reference in the workplace.

The first session will run for 2½ hours to allow for introductions, subsequent sessions will be 2 hours long. Each day will consist of 2 sessions (1 morning/1 afternoon) with a break of 10 minutes during each of the sessions, time will be allowed for questions and discussions.

### **Course Content**

#### **Basic Concepts**

- Identifying project cash flows and sources of information

#### **How to Calculate Project Benefits and Interpret the Answer**

- Project payback
- Net Present Value (NPV)
- Internal Rate of Return (IRR) and the cost of capital
- Profitability Index (PI)
- Strengths & limitations of each method

#### **Dealing with Risk and Uncertainty**

- How to identify and quantify project risks and uncertainties
- Sensitivity analysis
- Calculation of maximum exposure as a risk measure

#### **Economics, Risk & Decisions – Decision Points are Risk Points**

- Decision points for oil fields and gas fields
- Risk & probability definitions and concepts
- Risk identification, measurement & management
- Assumptions, sensitivities & risk premia



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**Exploration & Appraisal Decisions, Uncertainty, Risk and Exposure**

**Economic Models & Spreadsheet Design**

**Development Decisions**

- Work scope definition and options
- Decommissioning economics & risks

**Further Development Decisions & Economic Cut Off**

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### Testimonials

*"Gives a clear structured view of the financials of the oil industry. Well built up material from the first exercise to the final one. Liked that Matilde brings her own stories and experience as examples."* **Zoltan Domonyi, MOL Group**

*"It's been a great opportunity to learn project economics intensively."* **Teppey Hayakawa, Idemitsu Kosan**

*"I really liked this course, I learned a lot about risk and economics. The trainer was amazing answering all questions. The course was well organized."* **Sara Al-Sardi, Kuwait Oil Company**

*"This is my second course with MDT, it's a good experience. The trainer is a very good instructor, he knows how to present the information in an attractive way and has good experience in GCC oil companies which made the discussions very interesting."* **Shamma Al Fahad, Kuwait Oil Company**

*"The course gave a very holistic overview of most of the key parameters involved/used for project economic determination, which is very helpful for the general petroleum project controlling and management. The underlying field development plan was very helpful in order to understand the industrial project steps."* **Konrad Fischer, Wintershall Holdings GmbH**