



Tuesday 20 March 2007

**AULA MARIE CURIE
Eni Corporate University
Via S. Salvo, 1
SAN DONATO MILANESE**

11:00

2006-2007 SPE Distinguished Lectures Series

**THE END OF STRANDED GAS:
THE EMERGENCE OF THE GAS TO PRODUCTS (GTP) OPTION**

By Theo Fleisch – BP

➤ **ABSTRACT**

The world has an abundant supply of low cost natural gas in remote locations. The monetization of these stranded gas resources requires new technologies and new, large markets. GTP technologies, including the well known GTL (Gas to Liquids) process, finally emerge as options to efficiently convert this resource into clean, high value fuels and chemicals. This change was brought about by technology developments over the last two decades. Over the last two years, we have seen financial project commitments of over \$20billion for GTL projects alone. Less well known are rapid advances in gas to chemicals (such as methanol) conversion technologies and increases in plant scales which significantly reduce manufacturing costs. These developments transition e.g. methanol from a chemical to a large scale, future fuel and chemical feedstock for other large scale chemicals such as olefins. Among the many methanol derivatives (olefins, gasoline, acetic acid, hydrogen, etc) there is great promise for dimethyl-ether (DME) which has the properties of LPG. DME is envisioned and already employed as a domestic heating and cooking fuel, power generation fuel and as a super clean diesel alternative.

This presentation will review the technologies, products and markets of the many GTP options. It will discuss the role of GTP in the context of existing gas monetization businesses, such as LNG and pipelines, as well as other emerging technologies such as CNG and gas by wire. Future developments of floating GTP applications for offshore associated gas scenarios will also be reviewed.

➤ **BIOGRAPHY**

Dr. Theo Fleisch is a member of BP's Group Leadership and holds the position of Distinguished Advisor. Currently, he works in BP's new Global Gas To Products (GTP) group. His work focuses on the development and capture of low cost Gas To Market technologies, the development of commercialization strategies, evaluation of business opportunities and support of commercial ventures. Dr. Fleisch is well known for his leadership in GTP and his recognition of DME as a multi-source, multi-purpose clean fuel and chemical feedstock of the future. He holds a Masters and PhD summa cum laude degree in Physical Chemistry from the University of Innsbruck, Austria, had a postdoctoral assignment in Chemical Engineering at Purdue and has worked for 27 years in numerous technical and managerial positions in Amoco and BP. He has over 70 publications and 10 patents and has held many leadership positions in scientific and industrial organizations.