JOURNEY INTO UNCHARTED TERRITORIES

How are owners, contractors and suppliers adapting to successfully execute projects and reposition their businesses in the ever evolving project environment?

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REPOSITIONING THE PROJECTS BUSINESS IN A WORLD WITH CHANGING BOUNDARIES
Presentation Title

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JOURNEY INTO UNCHARTED TERRITORIES
GENERAL SESSION

REPOSITIONING THE PROJECTS BUSINESS IN A WORLD WITH CHANGING BOUNDARIES
The health and welfare of our personnel is a core value and an absolute commitment, no matter where in the world our employees are located.

- Values
- Commitment
- Training
- Focus
- Management Visibility
Technip and its partners have built Yemen’s first LNG plant.

- Information security
- Travelers security
- Emergency response planning
- Training
- Communications
Traditional Model for Local Content

Movement of man-hours from HQ to India, or similar center
Low Cost Engineering
Millions of engineering man-hours
The Kuala Lumpur Story

• Established as low cost engineering center 30+ years ago
  – Detailed engineering
  – Onshore plant
  – Offshore facilities
  – Ex-Pat Management

• 2011
  – FEED
  – EPCI Execution
  – Construction
  – Local Management
  – Developing additional local operations
Investments in Malaysia

- Office facilities
- Manufacturing Facilities
- Fabrication Facilities
Petronas Turkmenistan Gas Field

PETRONAS CARIGALI (TURKMENISTAN)
SDN BHD, Offshore Turkmenistan, Caspian Sea, Nov 2004 – 2011

Facilities: Two wellhead/riser platforms, 12-slots in about 55m water depth, export submarine pipelines from wellhead platform to Onshore Gas terminal (OGT), Interfield pipelines and MEG supply pipelines from OGT to wellhead platforms.
Sustainable Development

- Investment in intellectual capital across the globe
- Clients ever more ambitious local content objectives
- Encouraging a fair return for all
- Doing the right thing - transparency and credibility
- Signatory to UN Human Rights Global Compact
- Technip Italy SA 8000 certified
- Investment in local communities
The Subsea Business

- **Global Fleet**
  - Local logistics
  - Central Controlled Fleet Management

- **Current fleet: 17 vessels**

- **Local Content**
  - Local vessels
  - Local project management
  - Local content

- **Manufacturing facilities**
  - Spool bases

- **Local vessels**
  - Deep Blue
  - Deep Pioneer
  - Sunrise 2000
  - Venturer
  - Constructor
  - Seamec Princess
  - Apache
  - Orelia
  - Wellservicer
  - Skandi Achiever
  - Normand Pioneer
  - Seamec 2
  - Seamec 3
  - Geoholm
  - Skandi Arctic
  - Flexibras - Vitoria, Brazil
  - Flexibras - Tanjung Langsat, Malaysia
  - Angoflex - Angola
  - Skandi Vitoria
    - Brazilian flagged Pipelay vessel
    - Delivery in 2009
  - Skandi Niteroi
    - Brazilian Flagged Pipelay vessel
    - Delivery 2011
Today’s Model, P-51 Platform, Brazil Deepwater

- Client: Petrobras
- Semi-submersible platform
- Capacity: 180,000 barrels of oil and 6 million m³ of gas per day
- Value: $639 million
- First oil: January 2009

P-51 is the first semi-submersible platform to be constructed entirely in Brazil. It is anchored at a water depth of 1,255 m.
New Model for Local Content

► R & D
► Pre-FEED
► FEED
► Detail Design
► Execute
► Install
► Commission

LOCAL EXECUTION
**Tension Leg Platform (TLP)**

- Design and Tools (IPAD) developed initially in Houston

- All work now moved entirely to Malaysia
  - Star CCM Software – Air Gap/Wave Run Up
  - Accusim - VIM

- Opportunity to collaborate with Shell Malaysia

**R & D Program**

- Model Testing Underway
  - Working with local university
  - Managing model tests for Shell
  - Ballasting improvements, based on spar technology

**Local Content Now Includes R & D**
Where Next in Venezuela?

Mariscal Sucre Development
Dragon Field Layout

- Water Depth ~130M
- Jacket ≈ 7,300 Te
- Deck ≈ 6,300 Te

Water Depth ~130M

16” Flowline
≈ 19.6 km

36” Export line
By Others – 115 km

≈ 17.9 km

 Journey Into Uncharted Territories

43rd Annual ECC Conference
Where Next in Mexico?

3P Crude Oil Reserves\(^1\) (In billion barrels)

- **3P**
  - Possible: 30
  - Probable: 10
  - Proven: 10

Deepwater Resources (In billion barrels)

- **U.S. Gulf of Mexico\(^2\)**
  - Proven: 47
  - Mexico\(^3\)
  - Proven: 30

Market

- Cantarell peaked in 2004. Total oil production declined since then.
- Majority of the proven reserves is made of heavy crude oil.
- The deepwater holds massive potential reserves, but requires new technology.

What Role Can Technip Play?

- Assist Pemex expand into deepwater.
- Training of Pemex Personnel.
- Pre-FEED Activities for Deepwater.
- FEED Activities.
Thank You