Enabling Upstream Operational Excellence through Integrated Operations

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PETRONAS Upstream Operational Excellence

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Key themes for delivering excellence in operations

**OE VISION in upstream**

“Every employee will work in cooperation – leveraging discipline mastery and empowered to act decisively and safely – for the pride of themselves and their team.”

- Competitive Advantage
- Continuous Improvement
- Leadership
- Integration
IO is the enabling component of the Operational Excellence journey: a combination of real-time awareness technology, simplified processes, and collaborative mindset that fosters cooperative decision-making to achieve common objectives for HSE, asset integrity, and optimized production.
Business Process is critical to defining excellence in operations

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<th>UNDERSTAND</th>
<th>DEFINE</th>
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<tr>
<td>• ‘As-is’ state (behavior, mindset, BPM)</td>
<td>• Principles &amp; Governance</td>
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<td>• Reality vs. perception (GEMBA)</td>
<td>• ‘To Be’ state (team culture, BPI)</td>
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<td>• Operations context &amp; capability</td>
<td>• Business case</td>
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<tr>
<td></td>
<td>• Competitive Advantage</td>
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<td>• Enablers</td>
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<td>• Advantaged operations architecture (people, process, technology)</td>
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<td>• Strategic clarity &amp; alignment</td>
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<td>• Well orchestrated journey (gradual evolution)</td>
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Business Process Improvement

Define
1. ‘As-is’ State Assessment
2. Industry Gap Analysis
3. ‘To-be’ State Design
4. ‘To-be’ State Implementation

Measure
- Measure & Monitor Progress
- Performance Metrics
- Industry Best Practice

Control
- Implement ‘To-be’ State & Change Strategy
- Change Strategy Development

Improve
- Accept Change
- Value Realization

Roll out
- Business Process Mapping
- Roll out
- Value Realization

‘As-is’ State Assessment
- Industry Gap Analysis
- ‘To-be’ State Design
- Performance Metrics
- Industry Best Practice

‘To-be’ State Implementation
- Implement ‘To-be’ State & Change Strategy
- Change Strategy Development
- Accept Change
- Value Realization

Value Realization
- Business Process Mapping
- Roll out
- Value Realization

E&P World Class Operator
- Performance Metrics
- Industry Best Practice
- ‘As-is’ State Assessment
- ‘To-be’ State Implementation
Managing management *push* and asset *pull*
An IO Conceptual Roadmap

Key Milestones

- Define the Destination
  - Vision & Mission
  - Infrastructure
  - Governance

- Build the Road
  - Standard Framework
  - Foundation System
  - Processes & Workflows
  - “Develop Once …”

- Begin the Journey
  - Deployment
  - Progress Measures
  - IO Centre and Collaboration
  - “… Deploy Many”

- Accelerate Ahead
  - New Opportunities
  - Impact Measures
  - Tactical Business Intelligence
  - Continuous Improvement

- Take the Lead
  - Strategic Business Intelligence
  - Innovation

Leverage Incremental Benefits

Exhibit Industry IO Leader Characteristics

Change Management

IO Maturity

Technical + Organizational

Collective Productivity

Tactical Business Intelligence

“Innovate Once …”

“… Deploy Many”

Individual Productivity

Asset
Operational Linkages

Function:
- IO Centre Of Excellence
- Strategic Decisions
- Global operations monitoring & optimization
- Global Subject Matter Expert (SME) support

3 Main Collaborative Work Spaces with 24/7 capability:
- MX-Maintenance Excellence
- CBM-Condition Based Monitoring
- IAP-Integrated Activity Planning
- IL-Integrated Logistics
- SDM-Shutdown Management
- PX-Production Excellence
THANK YOU