



Drilling Management System

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- Drilling Management System is an umbrella that aligns the management philosophies with well construction process
- The purpose of management system is protection of people, properties and environment throughout the life cycle of the asset





- Policies are aspirational statements- Examples:
 - ✓ Company will adopt zero emissions discharge in all its operations
 - ✓ Company aspires for alarp harm to environment
 - ✓ Safe work environment for all employees
 - ✓ STOP work policy in effect
- The scope of policies usually applies to all activities in the company





- Standards provide means of measuring the implementation of a policy
- Each policy could be measured through one or more standards-
Example
 - ✓ A company's safety policy might require both casing design and well control standards to be satisfied
- The scope of standards could be global or regional





- Procedures describe how to implement a standard
- Example: Well control standard can call for always maintaining a KT of 15 bbls. For compliance, a KT procedure could be put in place to help calculate the KT while drilling.
- The scope of procedure could be global, regional or project specific

Policies

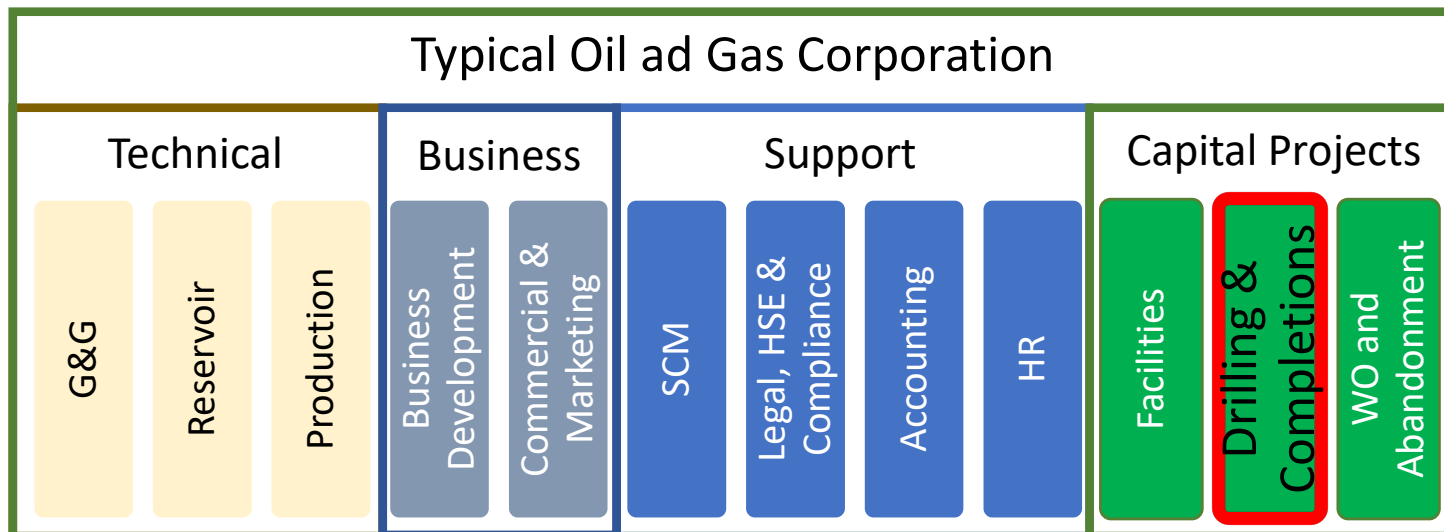
Standards

Procedures

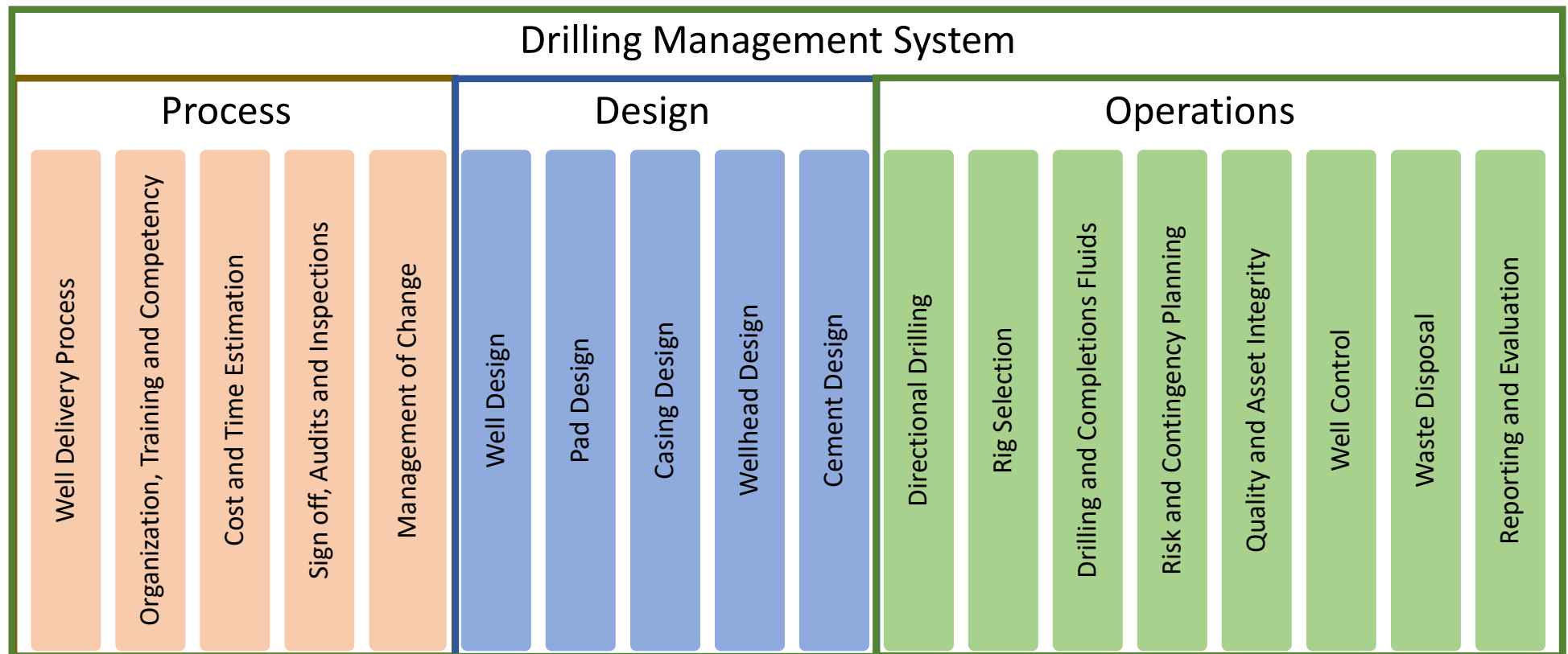


- Typically, the following aspects are covered under corporate policies:
 - ✓ Legal, HSE and Regulatory compliance
 - ✓ Project Management
 - ✓ Supply Chain
 - ✓ Risk Management
 - ✓ Training and Competence
 - ✓ Accounting

- Specific Drilling Management System (MS) components are required for:
 - ✓ Well Design
 - ✓ Operations
- Applicability extends to workover and abandonment operations



- Typically, a drilling management system (DMS) would comprise of these topics
- DMS could be organized as one over-arching standard with multiple procedures or multiple individual standards and multiple procedures. There are no set ways for organizing the DMS.
- The list of topics could be expanded or contracted depending on the criticality of aspects





28 years in various drilling engineering and management roles

Experience

- SAGD wells with temp > 250 deg C
- Shale gas pad drilling with temp > 150 deg C
- HPHT wells exceeding 5500m TVD, 200 deg C and 69 Mpa
- Horizontal and ERD wells with ERD ratio exceeding 7

Publications

- SPE 14UNCV-167725: Numerous technological improvements slash drilling times in HRB
- SPE 128194: Successful application of RSS in nitrified drilling fluids
- AADE-07-NTCE-50: Screening tool for rotary steerable
- AADE 2009NTCE 05-04: RSS technology creates value in Western Canadian drilling environment
- AADE 2009NTCE-07-04: KPIs Benchmarking- Systematic Approach
- Patent number 8199166: Visualization technique for Oilfield operations

