Lifecycle Management and Reliability at Schlumberger

Peter Ireland
Quality and Reliability Design Manager – IT Transformation
The E&P industry is facing greater challenges and needs faster, more reliable service.

Schlumberger embarked on a program to change the way we work.

Our goal is to deliver a step change in technology, reliability, efficiency and integration.
Industry Challenges

- **Technology**: Extending technical performance with game-changing technology
- **Reliability**: Learning from other industries and adopting new ways of working
- **Efficiency**: Optimizing the support platform and leveraging scale
- **Integration**: Aligning technical and commercial interests across the E&P value chain
Technology

- Increasing rate of innovation
- Shortening time to market
- Improving product performance
Principal Causes of Customer Nonproductive Time

- **Process Reliability**
  - Process design
  - Procedural adherence
  - Competency

- **Product Reliability**
  - Engineering
  - Manufacturing

“...our key challenges are around developing systematic and repeatable processes…”

“...there is an influx of inexperience in the industry...it is important to eliminate shortcuts being taken in our operations…”

“...changing the conversation from delivering safe operations to delivering perfect operations…”

Comments from major customers
Product Reliability – Manufacturing

- Product Reliability
- Process Reliability

- Supplier nonconformance
- Rolled throughput yield
- Nonproductive time induced by manufacturing

[Graph showing data for years 2011 to 2013 Q1 14]
Product Reliability – Out-of-the-Box Performance

MicroScope HD reliability

Operating reliability

Field test
Commercialization

2010 2011 2012 2013

Previous generation average

2.1 ×
Process Reliability – Procedural Adherence

North American wireline cased hole services

- Benchmark Q1 13 to Q3 13
- Improvement from pilot Q4 13
- Current year performance Q1 14

Failure rate

Product Reliability

32%
55%
Process Reliability – Competency

- Product Reliability
- Process Reliability

Competency assurance

- Training
- Proficiency
- Experience
- Assessment
- Record and report
- Audit, verify, and improve
- Determine activity risk
- Competency model
Questions?