

The Importance of Digital Transformation in Upstream Operations

Ben Allen
Technical Account Manager



Agenda

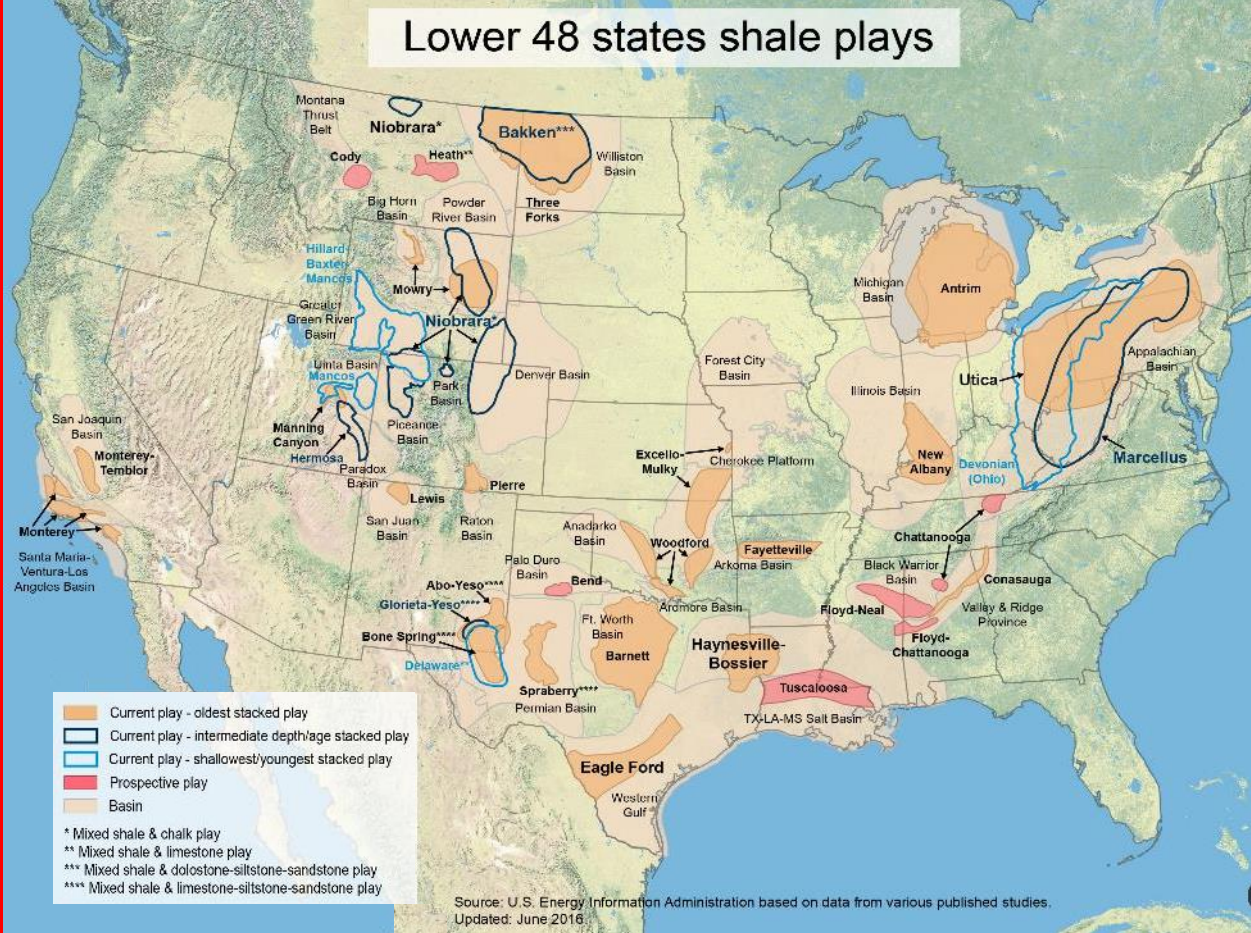
- **Background**
- **Current State**
- **Challenges**
- **Solution**

Upstream Overview

Current State

- Key Plays – Not just Permian Basin
- Longevity in plays 30-100 years
- Infrastructure build out highest ever seen
- Lower costs in E&P

Lower 48 states shale plays



Challenges

- **Upstream Pipeline Data Management**
- **Aging Pipeline Assets**
- **Adoption of new Technologies**
- **Lack of Process and Procedures**
- **Upstream Pipelines Not Considered Key Assets by Upper Management**
- **Upstream Pipeline Risk Assessments are Generally Simplistic**
- **Federal & State Regulatory Changes**

Goals

- **Leveraging Data Analytics for IMP**
- **Mitigating Pipeline Integrity Concerns Through Probabilistic Risk Algorithms**
- **Risk based maintenance Prioritization**
- **Develop Formal Processes**

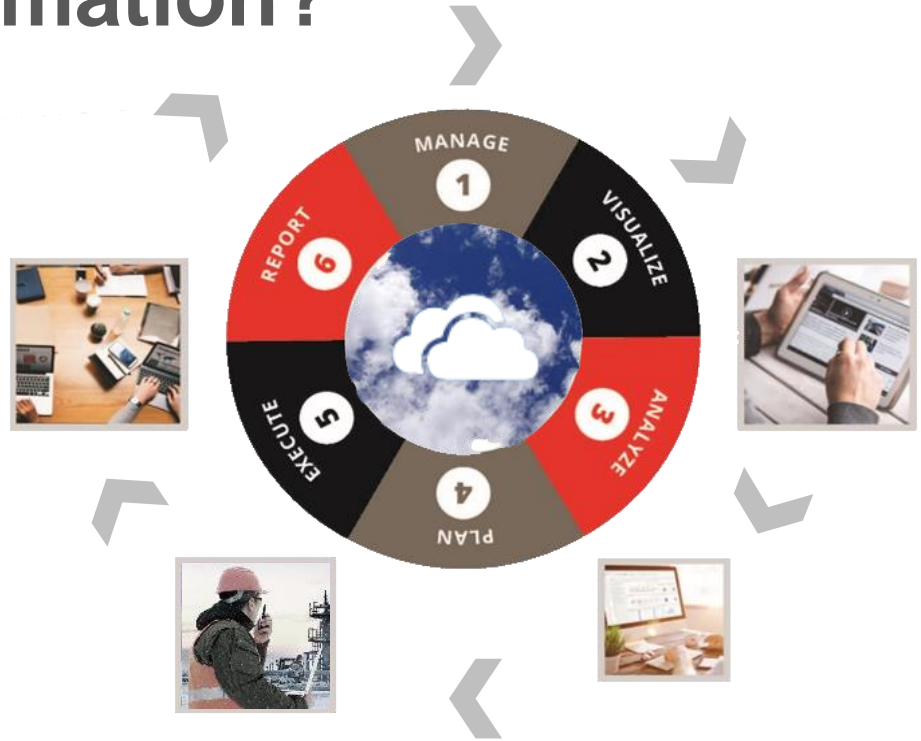
Why Digital Transformation?

- **Data consumption and assimilation**
- **Old legacy process**
- **Disconnected data**
- **Inefficiencies**
- **Data at Rest**
- **Leverage Technology**



Why Digital Transformation?

- **Data in Motion**
- **Value of Data**
- **Data Integrity**
- **Breakdown Silos**
- **Data Transparency**
- **Data Structure**



Why Digital Transformation?



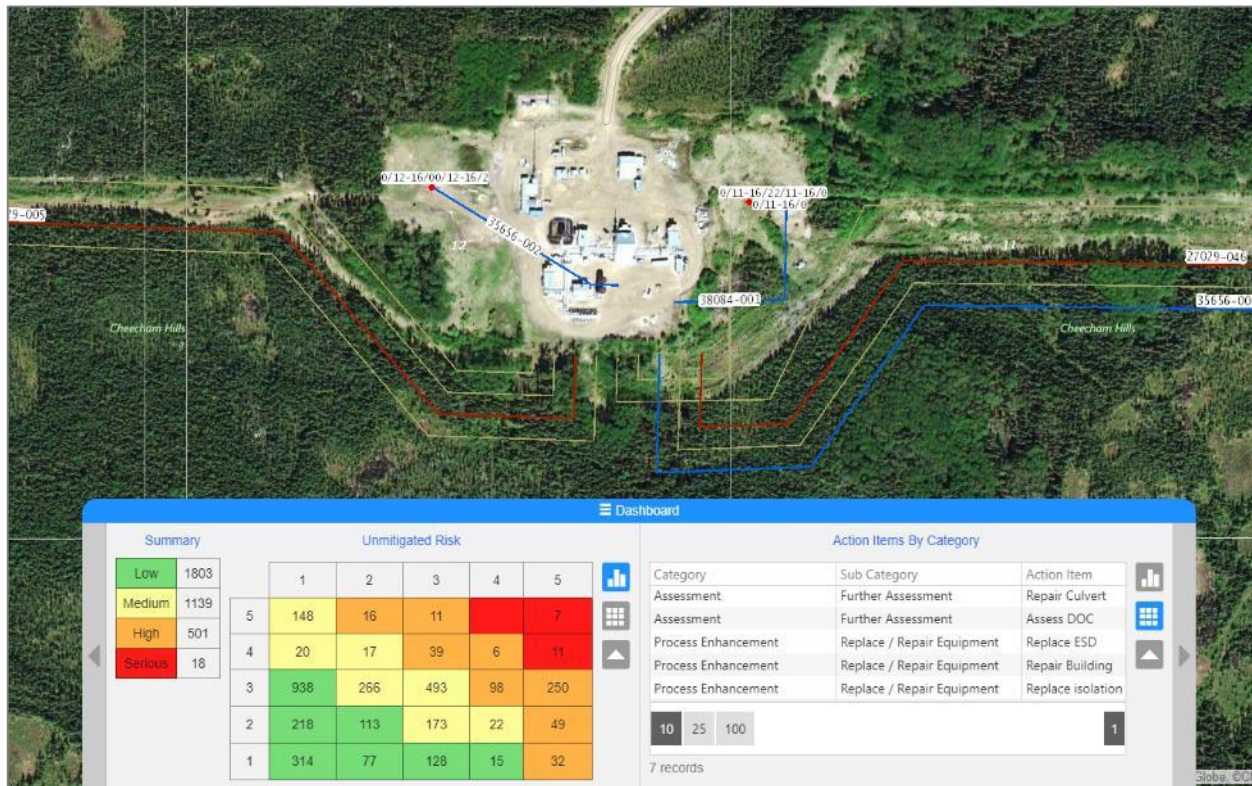
**Data at
Rest vs Data
in Motion**

Data Waves



User Output Graphics

What it could look like...



Outputs

- IMP
- P&M
- M&A

Benefits of data assimilation

- Quicker/safer reactions to potential impacts
- Cost Saving
- Forecasting Future Trends
- Management buy in
- Public Awareness

THE PLANET'S ENERGY DELIVERED SAFELY

Ben Allen
ben_allen@dynamicrisk.net
+1 (346) 224-0712
www.dynamicrisk.net