

DOT PHMSA Workshop

Managing Challenges with Seam Weld Anomalies

Working Group #2
Identifying Gaps in Technology

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Hypothesis

- In order to achieve technology developments that are game-changers for the industry, **collaboration** amongst interested parties is required.
- A comprehensive and cohesive strategy will optimize and direct available **resources** across the industry.

Introduction

- Knowns
 - **Industry experts** are committed to undertaking necessary measures to reduce pipeline risk
 - Industry has made significant **advances**
 - Pipelines are the **safest mode** of transportation
 - **Resources** (experts, contractors, operators, engineers, etc.) are limited
- Unknowns
 - What we don't know
 - Ability to quantify the number of failures that have been **eliminated** through technology advances
 - Political landscape
 - Reliability and availability of data

Components of Pipeline Operations: Focusing on Technology Development

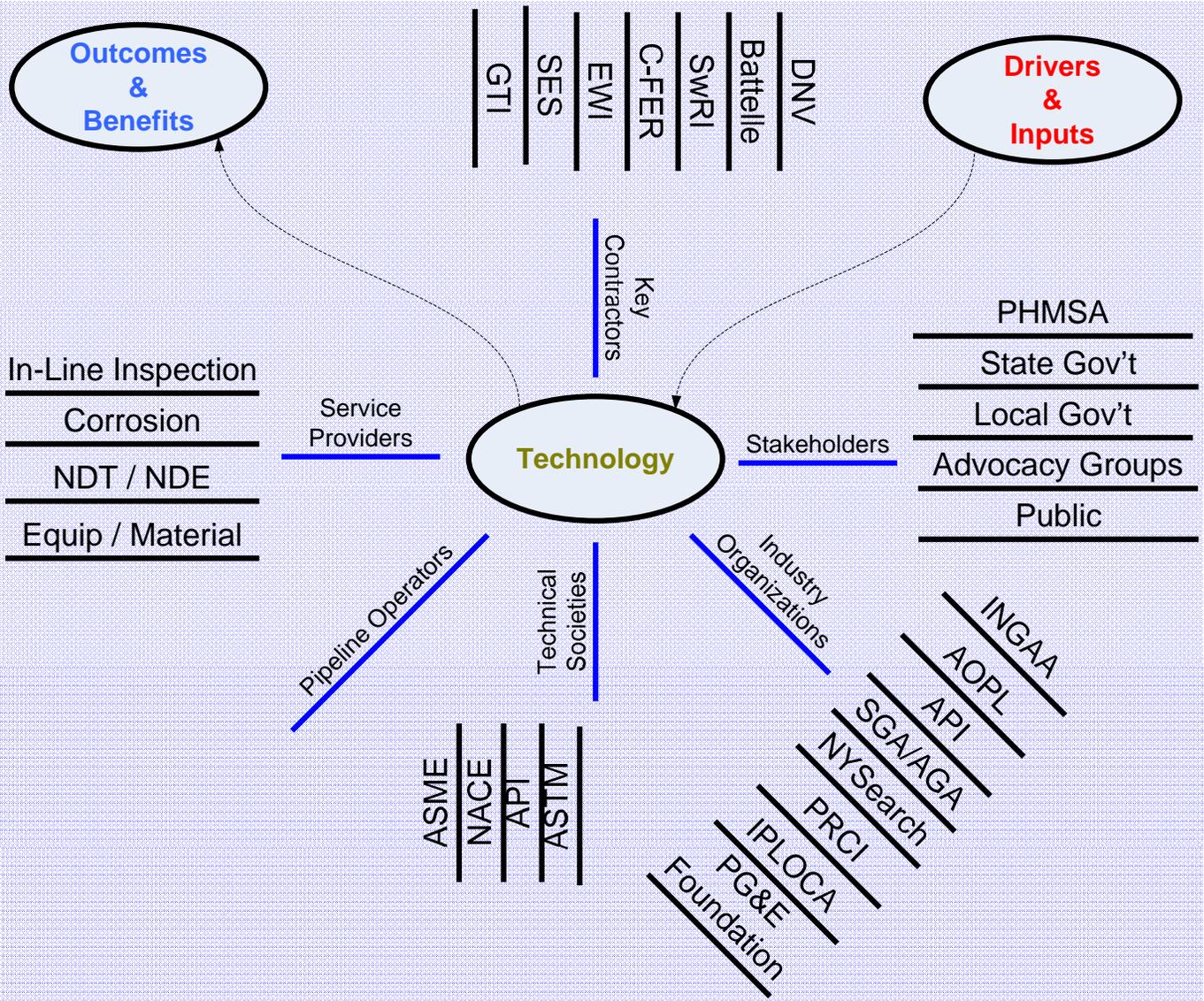
- Materials
- Pipe Manufacturing
- Non-destructive Examination
- Defect Assessment Methods
- In-Line Inspection
- Repair Methods
- Risk Assessment and Prioritization
- Data Management

Technology Development

- Industry ***demands*** are increasing and the resources (experts, contractors, operators, etc.) are limited
 - Experienced technical staff
 - Management of extensive data
 - Stakeholder and regulatory inquiries
- With increasing demands, there is the clear need to:
 - capitalize on ***synergies*** across the industry
 - Develop a cohesive and comprehensive ***strategy***

Overview

Example – Does not include everything



Technology Development

Roles and Responsibilities

- Contractors
 - Support industry organizations, pipeline operators, JIP's
- Service Providers
 - ILI – proven and emerging technology
 - NDT/NDE – proven and emerging technology
 - Corrosion – monitoring and mitigation, design
 - Equip/Material – focused technology development

Technology Development

Roles and Responsibilities

- **Technical Societies**
 - Standards and Technical practices
 - Professional development
- **Stakeholders**
 - Body of interest to ensure safe and reliable operations
- **Operators**
 - Management of threats
 - Reliable energy supply

Technology Development

Roles and Responsibilities

- Industry Organizations
 - Identify needs
 - Facilitate action to address needs
 - Apply technology to improve public safety
 - Provide reliable system performance
 - PG&E Foundation
 - Technology development for new inspection technologies
 - Best practices and Standards

Technology Gap

(for discussion)

- Identify comprehensive list of interested parties that are currently involved in technology development
 - Contractors, Industry Organizations, Service Providers, etc.
- Develop a strategic action plan to:
 - Capitalize on synergies
 - Reduce demand on critical resources
 - Focus on game-changers
- Identify ways to best collaborate across the industry
- Industry-government-vendor-contractor relationships.