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# TRACK 5 - CHALLENGING ENVIRONMENTS – SUBSEA PIPELINES

## PRCI Current Subsea Projects

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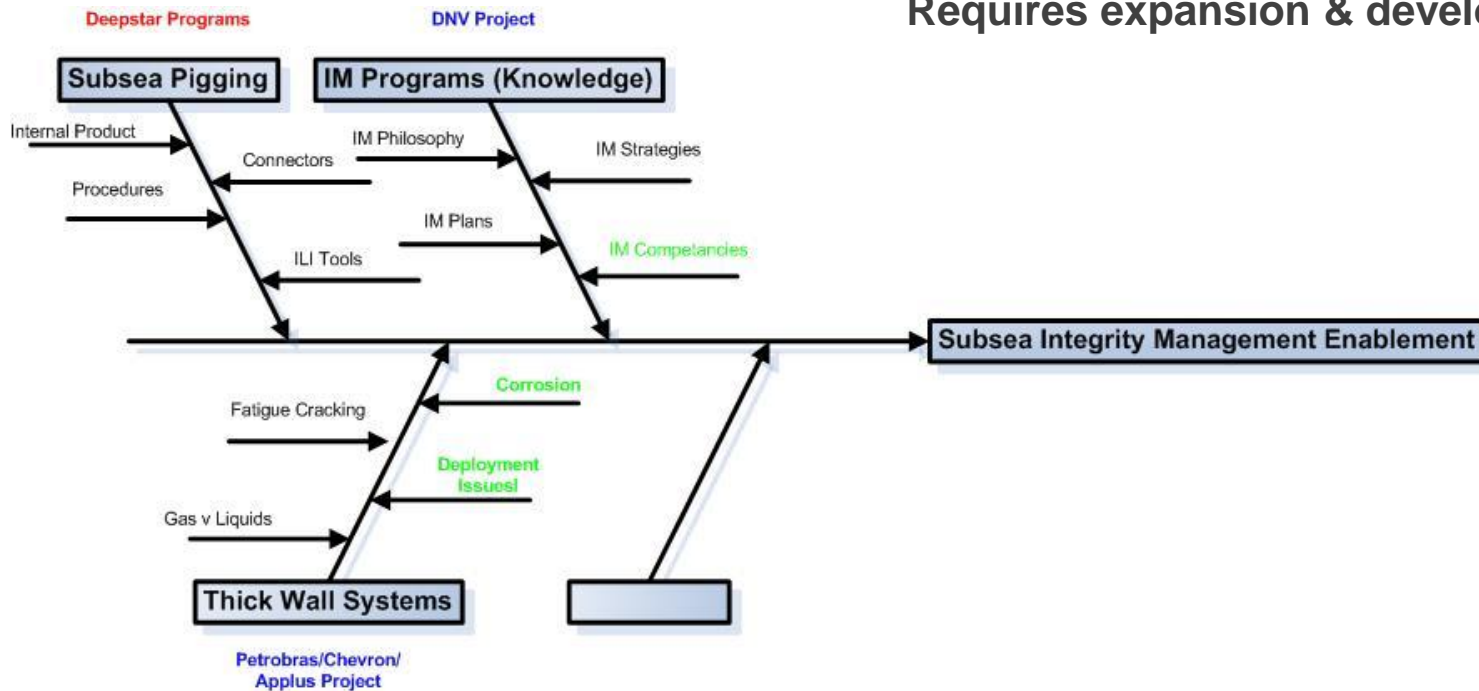
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## Outline

- **Subsea track within the PRCI is relatively new.**
- **Road mapping for direction is at an early stage.**
- **We are currently looking at ‘gap’ analysis what is it that PRCI can do that is not being covered elsewhere.**

# Conceptual Roadmap

Requires expansion & development



## SPIM 1-1 – Subsea Pipeline Integrity Management

- Fits to road map IM Knowledge
- Focus is on operational pipelines not new design.
- There are three (3) main goals for SPIM:
  1. Ensure that the pipeline(s) can be managed in a safe and cost effective manner, while protecting the environment throughout their operational lifetime.
  2. Minimize the impact on the availability and reliability of the offshore production (security of supply), thereby ensuring continuous throughput of hydrocarbon resources.
  3. Ensure flexibility in its application to the individual needs of oil and gas producers and pipeline operators, in different geographical, organizational legislative environments when developing, executing and revising SPIM programs.



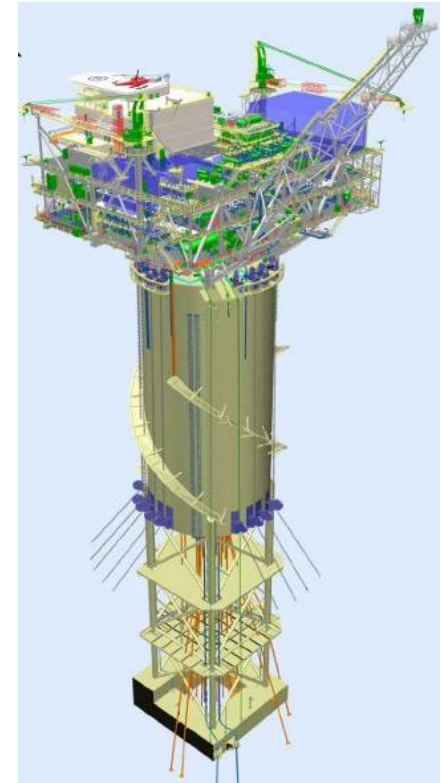
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- **Development of a ‘Best Practices’ document for establishing subsea pipeline integrity management programs.**
- **Phase 1 - current state of industry review.**
- **Phase 2 - development of best practice guidelines.**
- **Estimated 2 year time frame.**
- **Contract placed with DNV**

## SPIM 1-2 Crack Detection In Heavy Wall Gas Risers & Pipelines

- Program to determine the capability of ILI tools to detect fatigue cracks in heavy wall pipelines.
- primary focus is fatigue cracks in Steel Catenary Risers (SCR's) and Gas Pipelines subject to cyclical line packing in-service.
- Grow fatigue cracks in pipe sections.





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- Provides a test bed to determine current performance characteristics.
- Provides a test bed to test new sensor technologies.
- Retain to provide an ongoing benchmark of performance improvements.
- Phase 1 – 1 year duration.
- Contract placed with SwRI



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## 2010 Ballot Items

- **Assessment of NDE technologies for outside the pipe inspection of internal corrosion on subsea flowlines.**
- **Improving inspectability of gas pipelines & risers by dry coupled ultrasonics.**
- **Evaluation of MTM technology (on & offshore applications).**
- **Base resource document for unpiggable pipelines (all sectors)**
- **Subsea pipeline damage – inspection & protocol guidelines.**
- **Pipe in pipe inspection from outside the pipe.**