

# **Coating Test Methods and Materials Development**

**Group 1**

**Chairs**

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| Item   | Vote | Description  |
|--|------|--|
| Short term lab testing, to determine long term field performance           | 8    | Identify and develop novel and/or standard techniques to evaluate coating performance and correlate to long term field performance   |
| Develop modelling tool to predict long term field performance              | 7    | Identify critical coating material properties and integrate into the modeling, validate with the data for prediction of coating life |
| Database of coating performance in the field                               | 6    | Collect and catalog the field coating performance data   |
| Smart coating, use sensor to detect early coating failure                  | 5    | Develop integrated sensor technology for real time monitoring of the coating condition   |
| **Cathodic disbondment mechanism   | 4    | Determine the fundamental mechanism for the cathodic disbondment   |
| Effect of hydrocarbon, soil type on coating performance                    | 3    |  |
| Forensic technology documentation  | 3    |  |
| coating on substandard surface preparation                                 | 3    |  |
| 2L FBE   | 3    |  |
| stress distribution on pipelines in circumferential and lateral directions | 3    |  |

|  |          |
|--|----------|
| <b>Coupling agent btw steel and coatings</b>   | <b>2</b> |
| <b>Combination of various parameters(including thermal fatigue, ) on coating performance</b> | <b>2</b> |
| <b>Residual stress measurement of thick FBE and 3L polyolefin coatings</b>                   | <b>2</b> |
| <b>Standard development for tapes and shrink sleeves</b>                                     | <b>2</b> |
| <b>Remote monitoring coating failure</b>   | <b>2</b> |
| <b>polymer aging</b>   | <b>1</b> |
| <b>nonmetallic pipes</b>   | <b>1</b> |
| <b>Soil Backfill resistance</b>  | <b>1</b> |
| <b>ID inspection on external coating condition</b>   | <b>1</b> |
| <b>Use EIS to detect disbanding</b>  | <b>1</b> |
| <b>Real time coating quality assessment</b>  | <b>0</b> |