

IN-SERVICE PIPING INSPECTION WORK-AID TOOL FOR PROCESS INDUSTRIES

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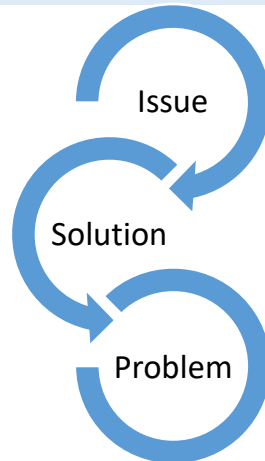
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Introduction

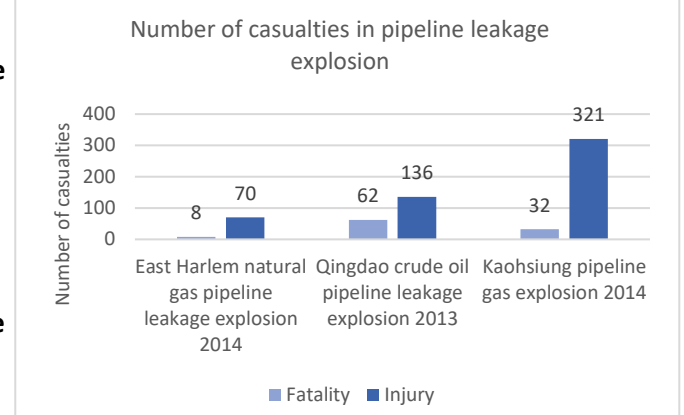


• Conduct In-service piping inspection



• Increased accidents due to aging pipelines

• Lack of simplified guide
• Lack of proper documentation

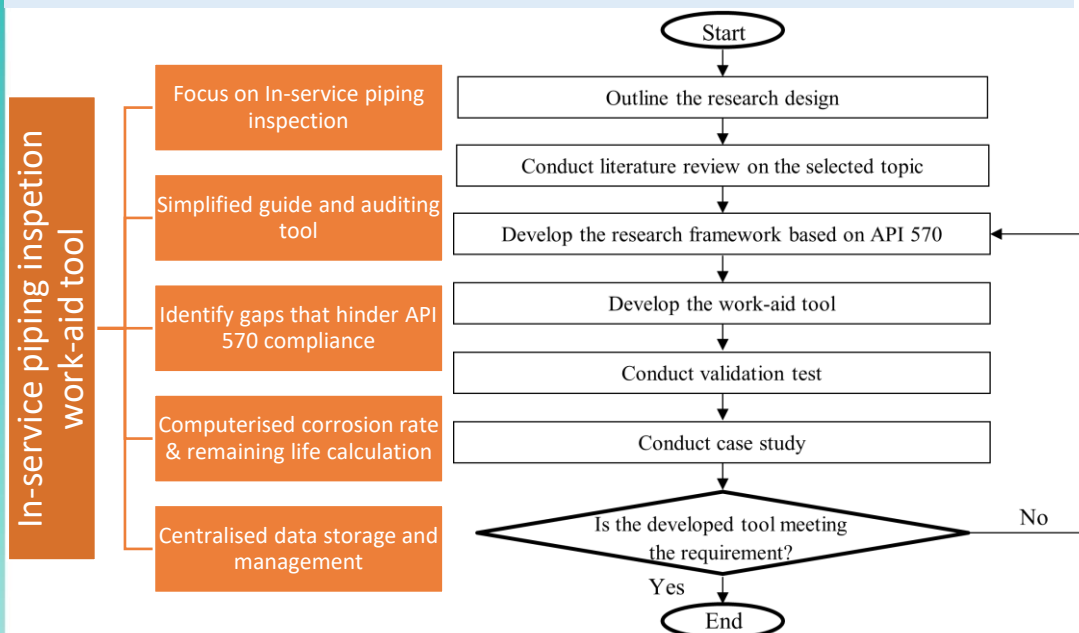


Objectives

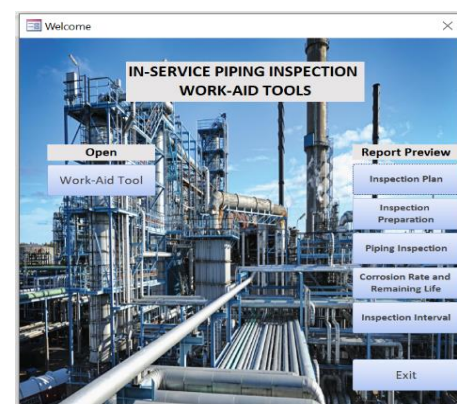
- To develop framework for in-service piping inspection
- To develop work-aid tool for in-service piping inspection
- To validate the work-aid tool via case study

In compliance with API 570 Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems.

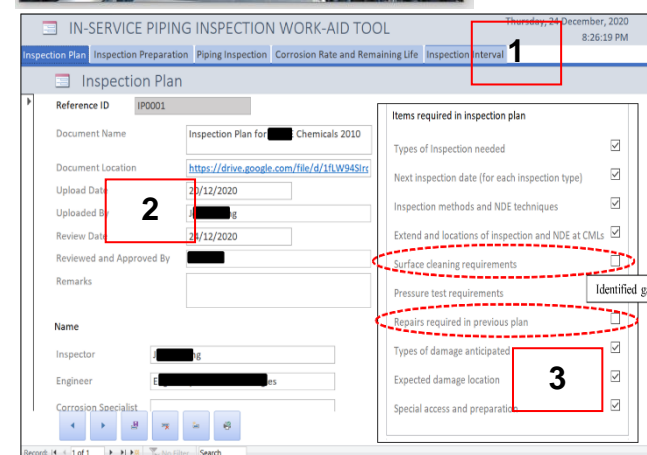
Innovation and Sustainability



Technology and Product Description



Main navigator interface

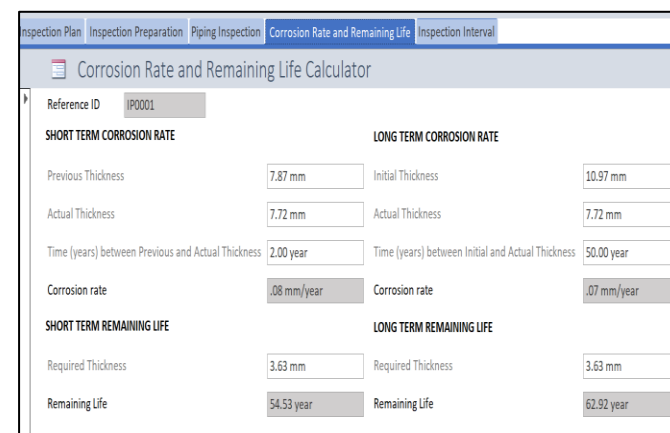
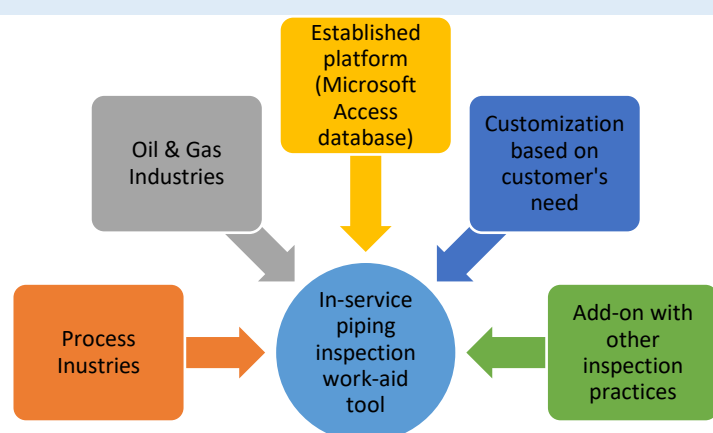


1. Arranged interfaces – simplified guide
2. Data storage
3. Checklist – identify gaps/compliance auditing

Impacts and Benefits

- ✓ Organised and efficient data management for easy access by the user to improve operational performance and cost saving
- ✓ Comply with API 570 for in-service piping systems
- ✓ Simplified inspection guide and computerized calculation to save time
- ✓ Customizable report to suit the purpose of each report

Potential Market & Business Model



Computerised calculation

Customizable report

Inspection Interval					
Reference ID	Date	Description	Remarks	Latest Inspection Date	Next Inspection Date
IP0001	24/12/2020	External Visual Inspection	Strip insulation from valve station and check for possible steam leak	12/7/2020	60 month(s)
IP0001	24/12/2020	Thickness Measurement Inspection	UT ports required to be cut. Thickness measurement above ASME B31.1 requirement	12/7/2020	120 month(s)

Current Achievement

- Reviewed and validated by Professional Piping Engineer