

EFFECTIVE PIPELINE INTEGRITY THREAT AND EXTERNAL CORROSION MANAGEMENT

Take your pipeline integrity programs to new heights with key insights and valuable analytics for improved management of your External Corrosion threat and Cathodic Protection data.

Transmission and Midstream pipeline Integrity Management Programs (IMPs) require external corrosion mitigation through Cathodic Protection (CP) systems. The minimum requirement to monitor the effectiveness of CP is typically through yearly Cathodic Protection surveys. Results of the survey data then need to be assessed in accordance with regulatory requirements and remedial plans need to be prioritized and properly executed. Unfortunately, many operators do not currently have an effective external corrosion mitigation strategy in place, which is often due to the following key factors:

- The inability to perform in-depth analytics by integrating CP data with in-line inspection (ILI) data, as well as data related to soil condition, external coating, and casings.
- Gaps in integration and communication between the team managing threats and the team managing risk and mitigation activities
- Not having a comprehensive project development and implementation process that includes representation of all key stakeholders to ensure that assets are designed for seamless integration into all existing integrity programs
- Absence of measurable and meaningful metrics and KPIs in place to effectively monitor performance and meet compliance requirements
- Not having an effective Data Management Program in place with inconsistent data gathering methods and large quantities of data from various sources to sort through

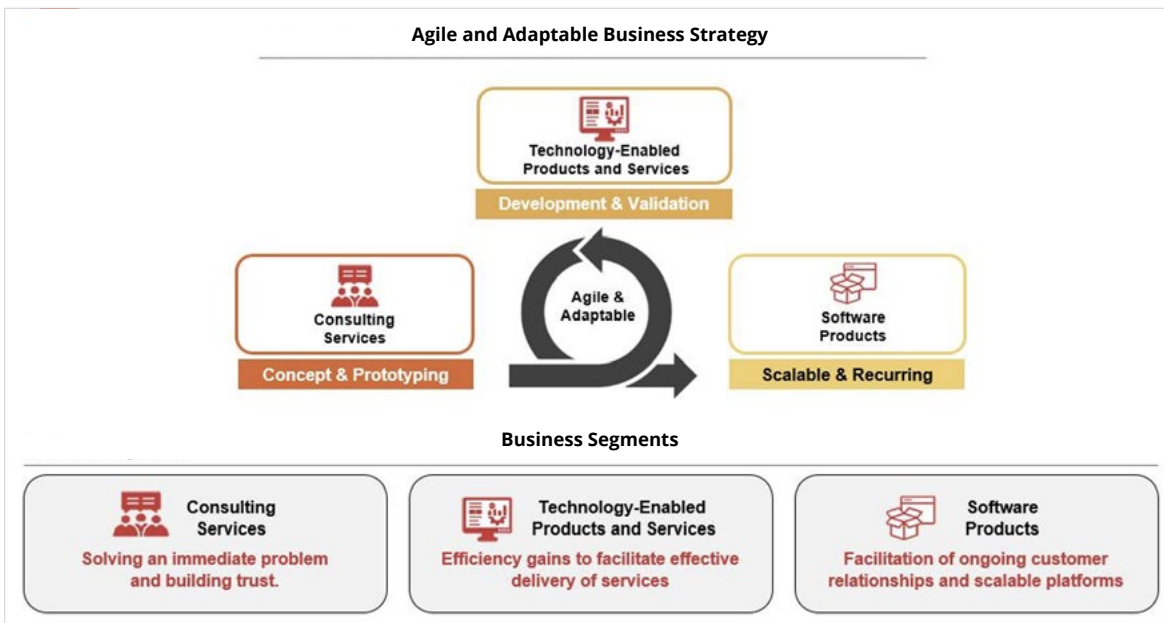
**SERVICES &
SOLUTIONS
TO MANAGE
RISK ACROSS
THE
ENTIRE
PIPELINE
SYSTEM
LIFE CYCLE**



EFFECTIVE EXTERNAL CORROSION MANAGEMENT THROUGH AN AGILE APPROACH

Dynamic Risk’s technology enabled solutions combine industry leading technology and consulting services to offer our clients differentiated solutions for the markets we serve. Leveraging our domain expertise in pipeline integrity management consulting, within our Explorer software application, we offer a flexible, scalable solution to streamline operators’ Threat and Corrosion Management processes in support of a robust IMP.

Figure 1.0 Differentiated Value – Technology + Domain Expertise



LEVERAGING EXPLORER FOR TRANSMISSION PIPELINE THREAT AND CORROSION MANAGEMENT

Explorer provides operators the ability to manage, view, analyze, report and plan work activities across their entire asset integrity team via a variety of mobile platforms. Explorer’s reporting features are among the strongest in the industry and allow users to analyze data through pivot tables, filtering, and scenario analysis.

Users can now leverage the key functionality Explorer offers for viewing capabilities and utilize this for their Transmission pipeline asset infrastructure to view location and analyze external corrosion mitigation program attributes such as data associated to rectifiers, groundbeds, anodes, test points, casings, pipeline centerlines, and other pipe attribute data. In addition, ILI data can be stored and displayed along side annual CP survey data resulting in the ability to identify trends and potential deficiencies.

Built-in reporting and dashboarding functions allow for KPIs to be generated programmatically allowing program owners and accountable stakeholders to see the effectiveness of overall system performances.

Figure 2.0 Explorer user interface example

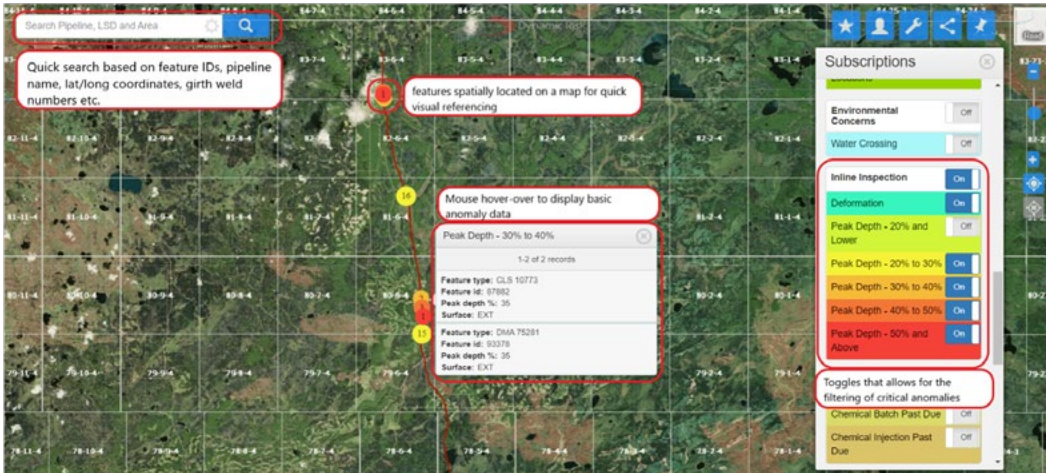
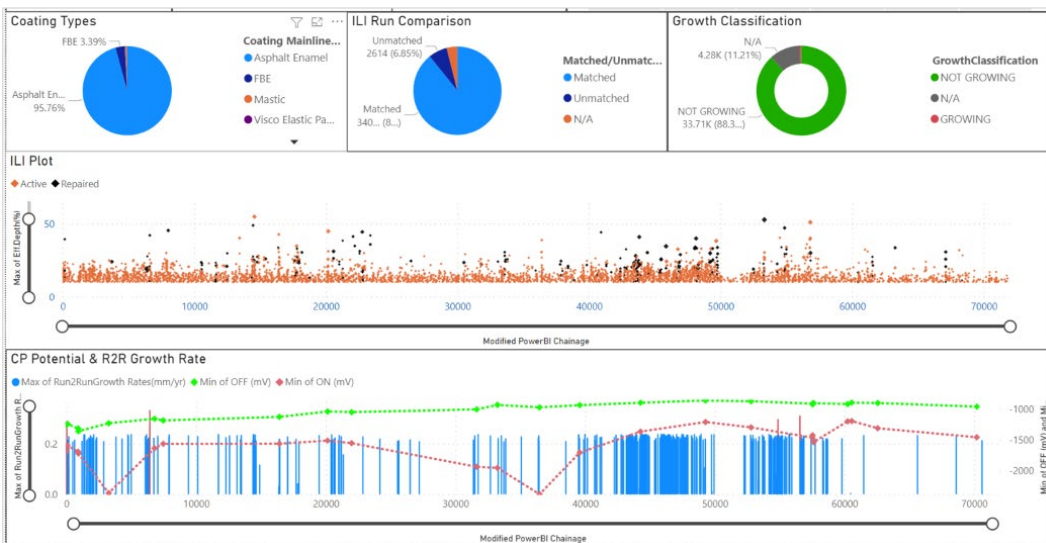
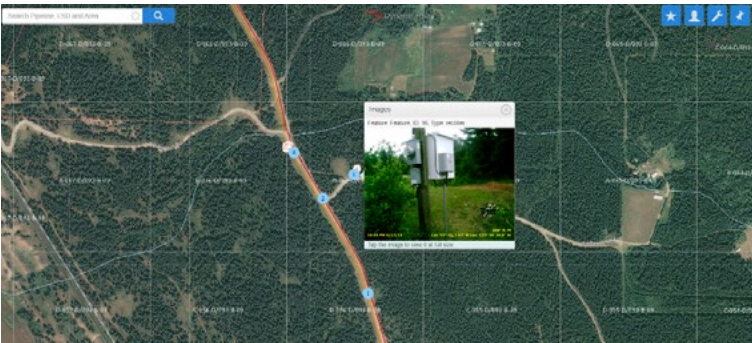


Figure 3.0 Sample Dashboard



The ability to embed field videos and photos allow office teams a quick reference to field assets. This assists Integrity teams to better capture and monitor pipeline performance, as well as provide technical recommendations for corrective measures and remedial actions. This type of progress and documentation is key to demonstrate regulatory compliance and continual improvements are being implemented.

Figure 4.0 Sample screenshot showcasing photo embedded



KEY BENEFITS

- A web-based GIS viewer to visualize data
- Customizable layers to view data sets
- Ability to add documentation, including photos and videos
- ILL and repair data repository
- Engineered analysis of integration to support a strategic approach
- Track action items and completion
- Customizable dashboarding of metrics or KPIs

ABOUT DYNAMIC RISK

Dynamic Risk's technology and consulting services optimize risk-informed decision-making to manage risk through an asset's entire life cycle. Our IRAS platform software models pipeline systems to proactively determine where they are most likely to fail and the corresponding consequences of unintended releases. From gathering systems, midstream pipelines, transmission pipelines, and distribution networks, we have software applications and in-house engineering expertise to provide complete pipeline risk assessment, data management, and compliance reporting.

Dynamic Risk is part of Previaan, a fast-growing, innovative, and private industrial technology group focused on advanced diagnostic technologies to monitor the world's infrastructure health. The Group serves asset owners, large engineering firms, and service companies globally in markets such as Aerospace, Civil Infrastructure, Energy, Mining, Power Generation, and Rail. Via sensors, hardware, robotics, and software, Previaan makes a safe and sustainable future possible, by pushing the limits of diagnostic technologies that preserve the integrity of our world's critical infrastructure and assets. More information can be found on the company's website: www.previaan.com

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