



ELSYCA V-PIMS

Corrosion is responsible for 30% of the pipeline incidents. Anticipate corrosion risks and control your cost by implementing unique, accurate and proven corrosion integrity modeling.

Reduce cost of ownership related to corrosion risks on pipelines via **unique and innovative PIMS** where field data is integrated in a fully representative digital twin model that calculates **corrosion rates and metal loss** for **entire pipeline networks**.

A new way to reduce cost of ownership

Pipeline integrity management requires costly ECDA and ILI surveys to meet compliancy with the regulations. Still, asset owners need to:

- Convert ECDA data into instantaneous corrosion rates;
- Avoid after the facts ILI metal loss observations;
- Solve uncertainties for non-piggable pipelines;
- Timely detect and mitigate AC and DC interference risks.

Elsyca's engineering team and V-PIMS solution allow to reduce cost of ownership via unique and innovative PIMS approach. It is now possible to access a GIS based mapping and reporting tool that integrates the eyes of subject matter experts.

A fully representative digital twin of your entire network

The large amount of data generated by field measurements are integrated and mastered in Elsyca V-PIMS solution. Powered by proven computational technologies, corrosion health status is made available at any location over the entire network in fast, accurate and comprehensive way.

The instantaneous access to computed corrosion growth rates and protection levels offers integrity and corrosion engineers unique insights in the corrosion status of their assets.

Win time and escape deadlock situations

Easily monitor today's pipeline network integrity status and

efficiently determine inspection intervals.

Elsyca V-PIMS solution supports management and engineering team in making the correct decisions on where and when counter measures are required avoiding post-mortem repairs and risks to excavate at wrong locations.

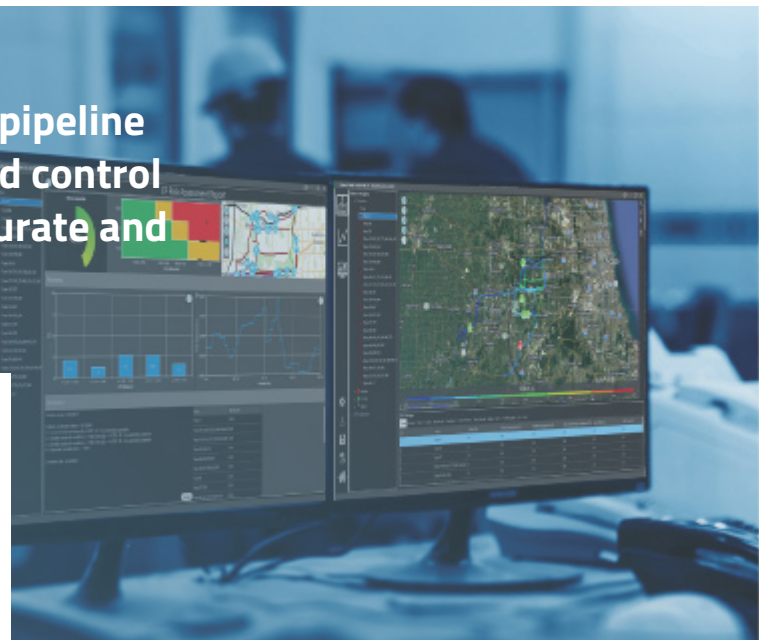
Its proven computational technology offers unique possibilities to analyze and anticipate any modifications of the corrosion protection system or assess the impact of new threats such as AC or DC interference sources.

Elsyca's engineering team supports the deployment of the V-PIMS solution by:

- Building accurate engineering models representing the corrosion health status of the pipeline network under CP and AC/DC interference;
- Developing tailored made reports to quickly get access to monitoring, risk management and meet compliancy with the regulations;
- Transferring expertise know-how of the ongoing corrosion mechanisms;

Pipelines are your assets.

By providing accurate and upfront insights, we help you protect them and avoid production losses or extreme repairs while optimizing your maintenance prevention campaign.



“ELSYCA V-PIMS solution enables connecting the dots by visualizing pipeline corrosion risks between test stations. Remediation till now has been blind and arbitrary while hoping for the best ... Today we are finally able to treat the symptoms, not the diseases

Major Pipeline Operator – Corrosion Prevention Team Leader

Our Approach

- Convert direct assessment readings into corrosion rates and metal loss offering timely and correct response prior to postmortem ILI analysis
- Provide values of CP protection level and AC/DC current densities at and in between test stations, and this for the full network
- Combine effect of all time dependent corrosion threats including AC and DC interference
- Reduce costs of survey campaigns and investments in preventive methods
- Refine re-assessment intervals in ECDA and ILI programs
- Visualize hotspot areas on maps
- Generate dashboards with KPI's for meeting compliancy and monitoring integrity
- Automatic reporting of compliancy and corrosion health status with KPI's
- Automate risk analysis process by interconnecting with asset & survey databases
- Validate designs and recommendations from contractors



Elsyca V-PIMS solution

- GIS based software platform with color coded and interactive maps, tables, graphs, dashboards and asset icons
- Handling large pipeline networks (>10 000km) with high granularity (joint level) and efficiency
- Fully automated by connecting to asset and survey databases, and remote monitoring devices from 3rd party vendors
- Provides CP compliancy checks (ON potentials, rectifier status, current through bonds) and corrosion integrity checks (coating resistance, CP current density, IR-free potentials, corrosion rates and accumulated metal loss)
- Provides AC induced voltage, current density and corrosion rates for AC corrosion risk analysis (NACE SP0177-2019, NACE SP21424)
- Import field data and compare with calculated protection levels in graphs, dashboards and printable reports
- Export to Google Earth (.kml) and other GIS systems (.shp)
- Support meeting industry standards like ASME B31.8S and API 1160
- Predict corrosion behavior and effectiveness of CP and mitigation systems under changing pipeline conditions
- Supported by team with 50+ years of experience in corrosion modeling

- Interactive interface
- Access to corrosion rates and metal loss anywhere over the entire network
- What-if scenario analysis and reporting

Some of our customers

