Corrpro EUROPE

# CP and Corrosion Data Management

## **Introduction:** Selection and Operation of CP Remote Monitoring and Control Systems

Corrpro Europe offers comprehensive solutions for Remote Monitoring and Control Systems (RMCS) tailored to cathodic protection and corrosion applications for pipelines and associated infrastructure. Our proprietary RMCS is based on a programmable logic controller (PLC) architecture, providing reliable and flexible performance for critical cathodic protection and corrosion monitoring. In addition to our in-house system, Corrpro also supplies, integrates, and operates third-party RMCS platforms as preferred by the client. We maintain strategic partnerships with multiple equipment manufacturers and are committed to working closely with customers to evaluate and select the most appropriate system based on technical, operational, and budgetary requirements. Our services extend beyond equipment supply to full lifecycle support, including system configuration, installation supervision, commissioning, and long-term operation. A core part of our offering is the remote data management service, which includes routine data collection, monthly analysis, expert interpretation of results, and actionable recommendations.

## Technical Details

Corrpro RMCS solutions are not limited to conventional cathodic protection monitoring but are also deployed to assess and manage AC and DC interference. These include interference between parallel pipelines, between high-voltage power lines and buried pipelines, as well as emerging challenges such as interactions with solar farms, battery energy storage systems (BESS), and other high-capacity electrical infrastructure. By integrating interference detection into RMCS operation, we support system integrity, ensure compliance with international standards, and help operators achieve safe and uninterrupted performance of their assets.

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In these applications, Corrpro Europe typically monitors a combination of pipeline on/off potentials, AC voltage levels, AC and DC current densities, and electrical resistance (ER) probe readings where installed. This data provides the basis for evaluating both protection performance and potential interference effects. Our team conducts  data reviews based on clients requirements which are anywhere between weekly and monthly. This includes expert recommendations by qualified specialists. These reports are focused not only on identifying potential anomalies or operational issues but also on assisting operators in balancing cathodic protection systems across multiple pipelines to maintain compliance with applicable protection criteria and minimise the risk of corrosion.

Our monitoring systems collect large volumes of data, often ranging from daily snapshots to millions of data points per month. To make this information actionable, Corrpro uses an intuitive traffic light systems that translates complex datasets into a clear and simple visual overview of system performance. Behind this simplicity lies robust analytical work, including trend evaluation and engineering assessments. Corrpro is actively investing in advanced data analytics capabilities, including regression analysis and the application of AI-driven pattern recognition and predictive modelling tools. Our goal is to develop a forward-looking monitoring approach that not only identifies current issues but also forecasts future risks based on historical and real-time data trends.

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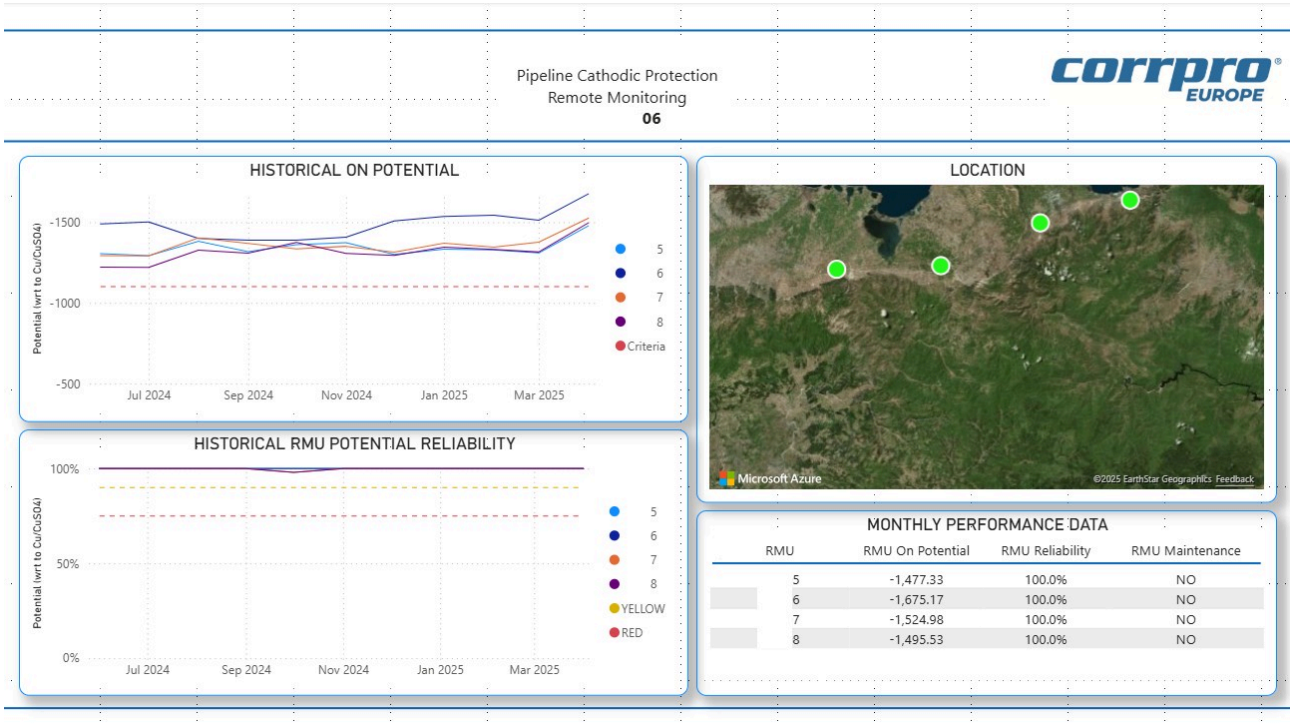


## Features:

- **Flexible System Provisioning:** Corrpro Europe can supply and operate its own RMCS systems or implement third-party solutions, depending on client preferences and project requirements.
- **Comprehensive Interference Monitoring:** Evaluates AC and DC interference between pipelines, power lines, solar farms, BESS, and other high-voltage infrastructure to protect pipeline integrity.
- **Advanced Parameter Tracking:** Continuously monitors on/off potentials, AC voltages, AC/DC current densities, and ER probe data to ensure alignment with international corrosion control criteria.
- **High-Frequency Data Acquisition:** Processes up to millions of data points each month to closely monitor pipeline conditions, allowing for early detection of corrosion risks and operational issues.
- **Expert Analysis & Reporting:** Delivers typically biweekly data reviews and monthly reports with expert recommendations to support system balancing and long-term corrosion mitigation.
- **Intuitive Data Visualisation & Predictive Tools:** Employs traffic-light dashboards for clear decision-making, with ongoing development of engineering analysis, regression modelling, and AI-based forecasting.

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## Applications:

- Oil and gas pipelines, including long-distance transmission and compressor stations , jetties and FPSOs
- Power infrastructure corridors with buried or aboveground pipelines near high-voltage power lines
- Renewable energy sectors, including solar farms and wind farm export cables interacting with pipeline systems
- Industrial facilities and tank farms requiring continuous remote corrosion monitoring and control
- Complex pipeline networks affected by stray currents, telluric interference, and AC/DC interactions
- Battery Energy Storage Systems (BESS) installations impacting nearby pipelines