

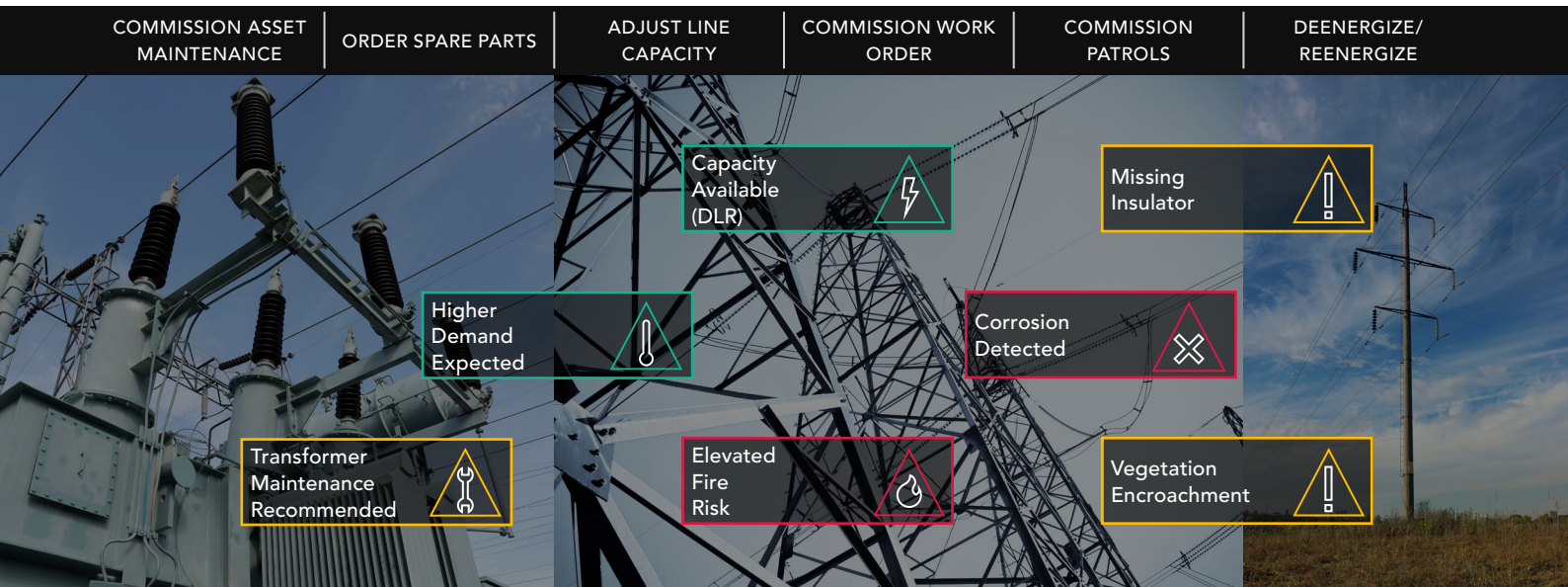
ACHIEVING ON-DEMAND RISK MANAGEMENT ACROSS GRID OPERATIONS WITH COGNITE DATA FUSION

Identify Areas of High Risk • Prioritize Asset & Line Maintenance • Reduce Wildfire Liability

Rapid change from harsh weather patterns is outpacing traditional methods of scheduled line inspection and asset management, exposing new and increasing risks across the grid from substation to customer. Given the sheer scale of activity across thousands of miles of power lines and distributed substations, the industry is quickly adopting IoT

sensors, drones, imaging, Lidar, and other technologies to collect more data than ever before. But this data collection at scale results in a complex digital solution stack that struggles to return the insights needed in a time sensitive, actionable way, resulting in compounding data and digital complexity.

Transitioning to On-Demand Risk Management is a Big Data Fusion Problem



On-Demand Risk Management — where risks are identified, visualized, prioritized, and actioned in near real-time — is achievable when data aggregation and analysis are automated, timely, and affordable and can be fluidly integrated into decision-making and work orders. This results immediately in increased visibility into the aggregated risk profile of grid operations and

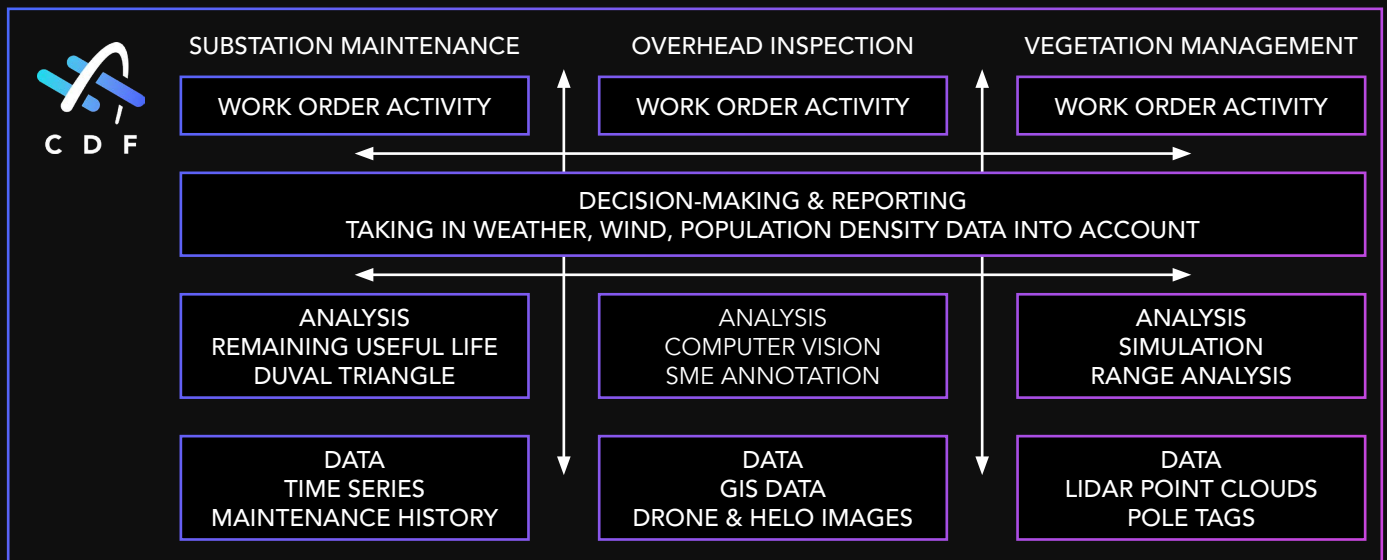
helps prioritize longer term capital expenditures into upgrades and planning. However, the sheer volume of data types, sources, analytics, and integrations involved make this a challenging problem that must be broken down into approachable categories of applications.



Develop Your Next-Generation Response to Risk And Retain Control of Your Data and Analytics

Cognite Data Fusion software offers an industrial data foundation for rapid development and deployment of risk-based digital applications built around industry-leading data contextualization and operationalization.

- Aggregates and contextualizes big data from all available IT and OT data sources
- Ensures data quality and lineage throughout the dev pipeline and into the end application
- Empowers data scientists, engineering, domain experts, and analyst workflows
- Enables operationalization and scale of digital applications with open integrations (APIs/SDKs)



Contributing Use Case 1: Transformers

A Major Norwegian Grid Operator is leveraging CDF to monitor the conditions of their distributed transformer network.

CDF is enabling their domain experts to proactively identify risks of failure so that maintenance can be scheduled accordingly.

Contributing Use Case 2: Inspections

A Major US Utility is evaluating CDF for mass inspection of Lidar and imagery data for equipment and vegetation anomalies.

By combining these data with GIS and pole tags, the utility will be able to assign work orders with pinpoint precision.



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