Fugro’s award-winning technology designed specifically for power utilities is based on Remote Observation Automated Modeling Economic Simulation (ROAMES®)—which creates a Digital Twin of such fidelity that it can be used for asset inspection, identification, and condition assessment without the need to deploy personnel to the field. The ROAMES® Digital Twin supports our clients in improving safety around their networks while reducing risk and total cost of operation, furthermore, supporting the momentous task of modernising the grid as part of the energy transition.

ROAMES® technology combines pioneering geospatial mapping techniques with cutting-edge data processing and cloud computing capabilities to deliver the complete and accurate Digital Twin of a power company’s assets.

Fugro was the first to market this revolutionary new technology and has been delivering ROAMES® to major distribution and transmission operators in Australia, UK, Europe, and North America since 2014. Fugro clients find value using ROAMES® for a broad number of use-cases including savings up to 40% on vegetation management with desktop scoping, reduction of vegetation management cycle by 1-2 years, and prioritisation of critical clearances network wide.
Fugro ROAMES® includes access to ROAMES® World for visualisation of the Digital Twin and ROAMES® Analytics for asset measurements and risk assessment.

ROAMES® World is a virtual world asset management platform built in the cloud – a high-performance 3D mapping environment that offers access to reliable, detailed information for better management and improved understanding of real-world context.

ROAMES® Analytics provides the ability to access and explore ROAMES® data. At times approaching millions of records, an asset register and any associated spatial data is typically too large to analyse at scale using traditional GIS or enterprise systems alone. As a result, it is difficult or impossible to detect broad trends, rapidly investigate an outlier, or share access with users in any location. ROAMES® addresses this need by offering a high-performance data investigation tool with a simple, intuitive interface so users can get better answers faster – critical for an optimised approach to asset and vegetation management.

Achieving and maintaining conductor clearance is an important safety and compliance issue. By precisely managing and monitoring the location of assets in the ROAMES® Digital Twin, power utility maintenance programmes can be more effectively managed to mitigate risk.