

LOOKING AFTER YOUR ASSETS

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As UK network companies start to develop optimised business plans for RIIO2, Pete Massey, founder and director of Upcurve Limited, looks at how French transmission system operator RTE adopted a new and holistic way of thinking to drive its asset management strategies.

RTE, owner of the largest high and extra-high voltage electricity transmission network in Europe, spends more than €800 million on asset management every year. Confronting challenges to arbitrate between maintenance and renewal policies, RTE decision makers realised they needed to create a holistic business plan, allowing them to view the impact of their decisions across multiple systems.

RTE's existing asset management tools were insufficient to tackle the problem. Apart from the risk of incompatible data, the main issue was simply that the different systems involved in RTE's asset maintenance and investment programs were managed separately, and each with its own static view. All the relevant departments (asset strategy and operations, human resources, finance, supply chain, etc.) had different drivers and individual objectives that could not be assessed with a single tool and analysed holistically over time.

RTE realised they needed a new way of working that went beyond existing options to help them take optimal asset management decisions. RTE partnered with Cosmo Tech and chose their Asset Investment Optimization (AIO) software solution. By adopting a radically new approach to digital simulation and retaining the existing principles of risk assessment, AIO provided an objective basis for comparing global asset management strategies, integrating maintenance and renewal in a single dynamic, and assessing the impact of assumptions or strategic choices. The ability to model skills and human resources increased RTE's confidence that their new asset management plans were deliverable and reflected real-world constraints.

To prove the relative advantage of AIO compared to existing methods, RTE chose a first case study based on tower painting and maintenance. This study had two objectives: first, to evaluate which parameters (painting efficiency, corrosion areas, etc) have the strongest impacts on KPI's, such as overall cost and worker safety; and second, to deliver a first holistic optimisation on the painting policy budget. Achieving the first objective allowed RTE to justify the dynamic simulations and field testing to determine the most important parameters, while achieving the second objective allowed RTE to justify an increase in its painting budget to minimise both spending and risk over the long term.

With RII02 and PR-19 on the horizon, regulators are demanding that energy and water companies demonstrate a holistic approach to managing their networks. Cosmo Tech has experience both in creating optimised asset business plans and developing asset resilience plans. Their software solutions and close working relationship with clients helps deliver sophisticated yet practical solutions to meet the wide-reaching challenges that asset intensive companies face today. As customer expectations rise, companies will need to manage the shifting landscape with innovative and adaptive tools. AIO supports companies in proactively managing and shaping the significant changes that are occurring across their networks in the long-term interest of consumers, stakeholders, and decision makers.



Cosmo Tech is a global software company that helps senior management and the C-suite make optimal decisions. Through the use of our proprietary methodology and technology, our clients can model and simulate complex scenarios to accurately predict the outcome of events across multiple business silos even if those events have never happened before. This unique capability to deliver interconnected insights allow organizations to accurately model various complex scenarios, therefore providing management with the capacity to make the best decisions for their company. Cosmo Tech's solutions elevate investments in big data and data science to decision management and Augmented Intelligence, which together allow the creation of unprecedented value by combining human and artificial intelligence. Cosmo Tech is truly transforming the way that decision makers in the energy, utilities, and mobility sectors optimize their asset management and operations strategies.

Network, is a sister publication to the well-established and highly successful brand, Utility Week, and provides a much needed resource for engineers in the UK's gas, power and heat networks at a time of transformation and disruption across the nation's energy system.