Arcadis Gen to Implement Digital Solutions to Support Network Rail's Intelligent Infrastructure Vision

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Arcadis Gen has announced that it will be utilising its Enterprise Decision Analytics (EDA) platform to power Network Rail's next generation of asset and workforce planning. EDA will be configured for the Asset Lifecycle Planning (ALP) and Work Planning and Scheduling (WPS) solutions to be implemented throughout 2021-22 for an enduring impact for decades to come.

Rachel White, CEO of Arcadis Gen says "We are very proud to be helping Network Rail on this digital transformation journey as part of their Intelligent Infrastructure programme. These two solutions will provide the tools to help asset management staff optimise their asset investment planning, help their frontline workforce maximise productivity, but most importantly, support safety and reliability at the heart of this critical national infrastructure."

Arcadis Gen and their EDA platform was selected as the preferred supplier by Network Rail and their IT partner, Cognizant. Starting in January 2021, having already successfully completed the high-level designs they are working as "one-team" with Network Rail and Cognizant to successfully implement the solutions

utilising an agile approach to delivery.

Asset Lifecycle Planning will deliver an integrated, strategic asset management planning system that has the capability to optimise investment plans across asset disciplines, based on a common value framework of service measures. ALP will provide Network Rail a single platform in which to create and optimise their work, holistically alongside all assets, routes, and regions. The key objectives of ALP are:

•   Align long-term asset management strategies with the short-term delivery plans, resources, and access,

•   Provide information to help forecast the future strategic demands for resources, machinery, materials, and access,

•   Produce live, multi-discipline and cross-functional plans which are in a tailored (for route/region) but consistent format,

•   Provide information from the workbank to accurately forecast engineering access requirements,

•   Optimise the asset intervention trade-offs (renew/maintain/enhance) based on different parameters (e.g., safety, performance, cost, sustainability),

•   Produce an optimised, live workbank that takes account of a range of factors including affordability, deliverability, access, resource constraints, corporate objectives etc.

Work Planning and Scheduling will enable the workforce, using technology, to efficiently plan and deliver Network Rail's commitments through an optimised industry leading maintenance regime. WPS will revolutionise work planning and its key objectives are:

•   A move to more proactive work planning and away from reactivity

•   Allow planners more time to make planning decisions and plan more safely,

•   Reduce the amount of time it takes to create a plan,

•   Reduce the amount of time it takes to re-plan following unexpected changes,

•   Allow maintenance units to negotiate better access,

•   The ability to measure and influence the stability of the work plan.

Matthew Wright, Planning Workstream Lead of Network Rail is excited about their future vision and how EDA can help them deliver against this, stating: "Our vision is to leverage data and technology to optimise railway asset management and work planning, to improve safety, efficiency and the passenger and freight experience.

"We selected Arcadis Gen and their software, EDA, because we wanted an out of the box platform that had the configurability and flexibility to meet all our planning requirements, whether that be asset, portfolio, or workforce. This is a once in a lifetime chance to digitally transform our planning processes."

Joe Roebuck, Global Analytics Leader of Arcadis Gen added: "This is incredibly exciting to see. To tackle both asset and workforce planning in such a holistic way is something I have not seen by any utility across the world. The workforce planning vision is something I have personally championed for years and remain very passionate about the potential.

"It is now even more important than ever that each of the routes are empowered with a consistent planning platform but has the flexibility to capture their regional requirements. We are proud to help Network Rail ensure the right people are assigned to the right job, on the right assets in the right location at the right time."