**PROJECT NAME: COGTA KZN ASSESSMENTS**

**PROJECT LOCATION: PROVINCE OF KWAZULU-NATAL**

**PROJECT VALUE: R 35M**

**PROJECT SUMMARY:**

LTE conducted the assessment of the state of municipal water, sanitation and electricity infrastructure in the ten (10) District Municipalities (DM’s) of the Province of KwaZulu-Natal (KZN) on behalf of the Cooperative Governance and Traditional Affairs (COGTA) KZN.

The outcomes of this assessment study will play a crucial role in guiding COGTA KZN towards achieving, and maintaining its policy objectives as defined by the vision, mission and value statements of contributing to the socio-economic development of the Province of KZN by coordinating and fostering co-operation amongst governance institutions and will build capacity to accelerate delivery of high quality services to communities.

**CONTINUE TO DETAILED PROJECT SUMMARY**

**PURPOSE OF THE PROJECT**

The main objective of this project was to provide support to COGTA KZN to create a business case to source funding for the replacement and/or refurbishment and/or operations and maintenance (O&M) of their existing infrastructure through the existing National Grant, or a potentially new National Grant.

The identification of current delivery challenges and an assessment of rehabilitation / restoration / refurbishment or upgrading of existing service delivery infrastructure has generally not enjoyed sufficient attention. Hence, in view of the advanced state of universal access planning and the growing risks of “new” backlogs arising from degeneration of existing infrastructure, COGTA KZN elected to apply funding to an assessment of the state of their existing infrastructure.

Existing National Grants like the Regional Bulk Infrastructure Grant (RBIG), Municipal Infrastructure Grant (MIG), Water Services Infrastructure Grant (WSIG), and Integrated National Electrification Programme (INEP) primarily provide funding for the capital cost of new infrastructure development.

These Grants generally represent a subsidy for poor households, of the infrastructure development cost, from the National fiscus and are primarily used to eradicate backlog studies and seldom make provision for operation or, particularly maintenance, of infrastructure.

**PROJECT BACKGROUND**

Since 1994, National, Provincial and Local Government have injected substantial effort and resources into the development of infrastructure, in pursuit of universal access to municipal service by all citizens.

Numerous National and Provincial support programmes have been implemented. While significant progress is being made in eradication of service delivery backlogs, the reality remains that delivery of services to every household is still only achievable beyond 202. This is not necessarily an indictment of municipalities, who have generally made optimal use of available capital grant funding, but is due to the enormity of the task. The imbalance between backlog eradication targets and available funding remains.

The rate at which service delivery backlogs are being eradicated is continually being constrained by the emergence of “new” backlogs, which are developing as a result of poor operation and inadequate maintenance of existing infrastructure. As examples, water treatment works are being run above design capacity and many water schemes have deteriorated to a state of dysfunctionality.

Capital development programmes like the Municipal Infrastructure Grant (MIG), Regional Bulk Infrastructure Grant (RBIG) and Integrated National Electrification Programme (INEP) cover the capital cost of infrastructure development. These programmes represent a subsidy for poor households, of the infrastructure development cost, from the National fiscus. They do not make provision for operation or, particularly maintenance, of infrastructure.

The rationale is that the sale of the service must generate the revenue to operate and maintain the service. Were there not indigent households, this would be valid and correct. However, because of high numbers of indigence household, municipalities cannot possibly generate sufficient revenue to adequately fund operation and maintenance.

In addition, municipalities are required to provide services for free in terms of Free Basic Services policies. Any revenue is hence first applied to indigent support.

Against the above background, COGTA KZN, backed by a resolution of the Provincial Executive Council, at its August 2018 Lekgotla, secured funding to establish the current state of service delivery. The primary areas of focus were water, sanitation and electricity services.

Hence, in view of the advanced state of universal access planning and the growing risks of “new” backlogs arising from degeneration of existing infrastructure, COGTA KZN elected to apply funding to an assessment of the state of existing infrastructure within the Province.

DIGITAL TRANSFORMATION – A STEP INTO 4.0

Following the thorough planning phase with key considerations around project timelines, project budget and a holistic, forward looking view on COGTA’s nation-wide objectives, lead to the decision to leverage off digital capabilities in the way in which data was to be collected, stored and analysed. LTE appointed a digital transformation company to deliver a data collection solution to speed up the assessment process time whilst increasing data quality and to deliver an analytics solution that would replace/supplement physical reporting and the standard way of reporting on condition assessment of municipal infrastructure.

The significant value-add of this proposed solution was to elevate COGTA KZN into the digitisation of their data to avoid fruitless expenditure of traditional “Reports” which are often never read, or the recommendations contained within ever applied effectively.

The software solutions introduced are as follows:

1. Fulcrum – Data Capture Application (“Data Capture App”)
2. Qlik – Data Analytics Application (“Data Analytics App” – Artificial Intelligence (AI))

Fulcrum is a cloud-based mobile data collection platform, designed to simplify the process of collecting and managing geographic data captured in the field. The platform consists of web-based form building, user management, and quality control tools, along with native mobile clients for fieldwork and integration points for extensibility. This technology WAS used to collect, store and disseminate data to the visual analytics toolset

Qlik is the vendor that provides a platform for data analytics and visualization. The product used to develop an analytics solution is Qlik Sense, a business intelligence (BI) and visual analytics platform that supports a range of use cases, including centrally deployed, guided analytics apps and dashboards, custom and embedded analytics, and self-service visualization, all within a scalable, governed framework. This technology was used to harness the data collected to enable actionable insight and deliver a visual analytics capability.