

Kenya Sustainability Report 2018/9

| Building Africa's
digital future



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Sustainability Report

Mission

Building Africa's digital future.

Vision

To be the leading provider of telecommunications infrastructure and digital services while offering exceptional customer and employee experience.

Our Values

Customer first:

We listen and align to our customers' needs then we delight them.

Winning together:

We exemplify positivity and kindness to each other. We work as a team and have fun together.

Taking responsibility:

We are accountable for our area. The buck stops with me.

Aim for excellence:

We prioritize. We aim to exceed our targets. We take risks and innovate.

Purpose

United Nations Sustainable Development Goals - Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

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Code of ethics for business

We, the business community, recognise that ethical business brings about good business. We are committed to play a proactive role in building a globally competitive and prosperous nation, with a high quality of life, as envisioned in Vision 2030.

As good corporate citizens, we are committed to treating our stakeholders with respect, run our businesses responsibly, act in compliance with applicable laws and to be actively involved in corruption prevention.

Our Organisation

- **Respect:** We respect the human rights and dignity of all our employees and do not tolerate unfair discrimination or favoritism.
- **Responsibility:** We take responsibility for providing decent, safe and healthy work environments for our employees, for developing their talents.
- **Compliance:** We comply with labour laws and related regulations, safety and health policies, and standards of decent work.
- **Corruption prevention:** We actively develop anticorruption programmes, institute internal control systems and build a culture of corruption-free business practice.

Our Shareholders

- **Respect:** We respect our shareholders and other potential investors for financing our organisations thus creating employment in the nation.
- **Responsibility:** We take responsibility for economic development by pursuing a healthy return on investment.
- **Compliance:** We comply with principles of good governance that inspire investor confidence.
- **Corruption prevention:** We avoid corrupt practices that can harm the good reputation of our shareholders and other investors.

Our Customers

- **Respect:** We respect our customers and clients, do not mislead or exploit them, and value their feedback.
- **Responsibility:** We communicate truthfully on our products and services and take responsibility for their safety and quality.
- **Compliance:** We comply with consumer protection laws, refrain from anti-competitive practices, and ensure that our products and services meet health and safety standards.
- **Corruption prevention:** We embrace corruption-free practices to ensure that users can trust our products and services.

Our Suppliers

- **Respect:** Our interaction with our business partners is based on mutual respect and therefore we engage in win-win relationships.
- **Responsibility:** We encourage our business partners to share our commitment to responsible business.
- **Compliance:** We comply with all contractual and legal obligations agreed with our business partners, and we pay them on time.
- **Corruption prevention:** We do not give or receive bribes and avoid corrupt practices that can harm our relationships with our business partners.

Our Society

- **Respect:** We respect the people and social and cultural norms of the communities in which we operate.
- **Responsibility:** We take responsibility for the impact of our operations on local communities, and we contribute to the development and strengthening of the societies in which we operate.
- **Compliance:** We comply with the ethical norms of the society from whom we earn our license to operate.
- **Corruption prevention:** We collaborate with communities and civil society organisations to create a corruption-free society.

Our State

- **Respect:** We respect the elected government, the rule of law, and all organs of the state.
- **Responsibility:** We are responsible and law-abiding corporate citizens who co-operate fully with the government to promote good governance in our nation.
- **Compliance:** We comply with all laws and regulations of our country, and we pay our taxes.
- **Corruption prevention:** We do not bribe public officials or engage in corrupt practices, we report corruption, and we collaborate with the government to stamp out corruption.

Our Environment

- **Respect:** We treat our natural environment and biodiversity with respect.
- **Responsibility:** We take responsibility for our impact on the natural environment, support green business practices, and take remedial actions to ensure the sustainability of our natural resources.
- **Compliance:** We comply with environmental laws and regulations and implement environmentally sustainable practices.
- **Corruption prevention:** We avoid corrupt practices that can degrade our natural heritage.

| Address by Chairman



Mr Ben Roberts

Chairman,
Liquid Telecom Kenya

Liquid Telecom Kenya celebrated its fifth birthday in 2018 as a leader in its field, while still yet in its formative years.

In many ways, such swift success has been driven by the clarity of our aims in shaping this business. For we have remained sharply defined and true throughout our first five years, with our sights firmly set on creating a business that is built on integrity to deliver development for all through digital transformation.

In this, 2018 marked a year of many large strides. We led the way in bringing a nationwide Internet of Things (IoT) network to Kenya that has positioned the country ahead of many others in the continent, and seen the roll-out of multiple internet-based monitoring tools that are transforming lives.

Typical has been the connecting of air pollution monitors for Code4Africa, which are now delivering pollution results for Kenya from sensors all over the country, every few minutes. Likewise, we have partnered with developers in Kisumu to create fish pond sensor software that allows farmers to lift their fish output by measuring water temperatures and feeding fish exactly the right volumes for their health and for maintained water quality.

We have also led the way in partnering with our national electricity transmission company Ketraco to enable its existing optic fibre network to serve as an internet backbone, and build in internet fibre to thousands of kilometres of upcoming electricity transmission lines.

This kind of partnering is not only smart, but it puts Kenya, again, in a position of leadership as one of the very few countries in Sub-Saharan Africa that has combined its electricity and internet transmission networks.

With everything we do at Liquid Telecom we target social and economic impact and as this report demonstrates, 2018 was a year where we delivered a great deal more of both.

| Address by CEO



Mr Adil El Youssefi

Chief Executive Officer,
Liquid Telecom East
Africa.

Brilliant and sustainable business is only achieved by being close to customers' needs and running a business efficiently on the inside, free from fraud and moral lapses.

It is for this reason that we, last year, put so much emphasis on fraud training for our staff, which we supported with posters throughout our offices and regular anti-fraud briefings in our monthly Town Hall meetings for staff.

Fraud never becomes acceptable because it is committed inside a company: it is not stealing from the rich to feed the poor and represents no heroism, driven, normally, by personal greed and gain. We thus have no place for any business practice at Liquid Telecom Kenya that is not transparently fair and proudly ethical.

In this, we recognise that a significant element in achieving solid probity in our business is a well-defined policy environment. For this reason, in 2018, we created a new whistleblower policy as a robust protective structure to encourage staff to speak out wherever they see wrongdoing within our business. We see this as an essential element in upholding the Code of Ethics that we are committed to, and have outsourced our whistleblower line to consultancy Deloitte's to ensure total protection for anyone reporting on any business or ethical breach related to our company.

Such ceaseless efforts to ensure efficient and fair practice have brought many rewards, however. Last year saw us, once again, cited as a market leader for the quality and reach of our networks and for our wholesaling delivery.

In particular, our continued leadership in technical development brought multiple awards, with examples being the EastAfrica.Com award for the roll-out of the latest DWDM technology across our East Africa Fibre Ring, which increased our transmission speeds ten-fold, to 100G. This upgrade, alone, has moved ring to the top position in Africa for backhaul capacity.

These and many other achievements for our business have been driven by staff care, the high levels of motivation across our many teams, and a company culture geared towards customer care and the creation of value.

Awards, 2018

May'16th
2018

Jun'19th
2018

Oct'25th
2018

Oct'31st
2018

Nov'1st
2018

Liquid Telecom wins East AfricaCom award for Best Network Improvement

Liquid Telecom won for its deployment of the latest DWDM technology within its East Africa Fibre Ring. This enables transmission at the highest possible capacity of 100G, 10 times the speed of the previously used 10G waves, making the East Africa Ring the largest lit backhaul capacity in Africa.

Liquid Telecom named winner of the Commonwealth ICT Awards and the CC-Global wholesale awards held in London and Berlin respectively

Liquid Telecom was named winner at both the Commonwealth ICT Awards and the CC-Global wholesale awards, held in London and Berlin respectively. The company won the Best Fixed Broadband Access Initiative category at the Commonwealth ICT awards, which are organised by the Commonwealth Telecommunications Organisation in London.

The awards are held every other year and recognise major achievements in ICTs by member countries and organisations working within the Commonwealth.

In Berlin, Liquid Telecom picked up the CC-Global award for Connecting The Unconnected for a second consecutive year. These annual awards recognise the innovative achievements of wholesale operators around the world.

Liquid Telecom named Best African Wholesale Carrier for Seventh Consecutive Year at Global Carrier Awards in London

The annual awards are the largest global celebration of the wholesale telecoms market recognizing innovation, vision and excellence across the industry for the best companies, projects and partnerships. The completion of the Cape to Cairo network, was called out as one of Liquid Telecom's key achievements since last year's award. Part of the wider "One Africa" broadband network, which has been more than ten years in the making, it connects 13 African nations through over 60,000km of national and cross border fibre networks, including FTTH, metro and rural networks.

Liquid Telecom Wins Service Provider of the year - Africa at MEF18 annual conference in Los Angeles

The award recognized Liquid Telecom's leadership in the development and delivery of global, regional, retail, and wholesale services as well as excellence in network and service innovation, LSO strategy, and marketing.

Liquid Telecom named Best Regional Wholesale Operator at World Communication Awards

The WCA award recognises Liquid Telecom's ongoing contribution to the growth of Africa's digital infrastructure – and its belief that everyone in Africa has the right to be connected.

| Business impact

The group has operations in Botswana, DRG, Kenya, Rwanda, Tanzania, UAE, Lesotho, South Africa, Mauritius, Uganda, Zimbabwe, Zambia and the UK.

It has built Africa's largest independent fibre network, spanning over 70,000km and operates state-of-the-art data centres in Johannesburg, Cape Town and Nairobi, with a combined potential rack space of 19,000m².

Liquid Telecom supplies fibre optic, satellite and international carrier services and payment solutions to Africa's largest mobile network operators, SPs, financial institutions and businesses of all sizes.

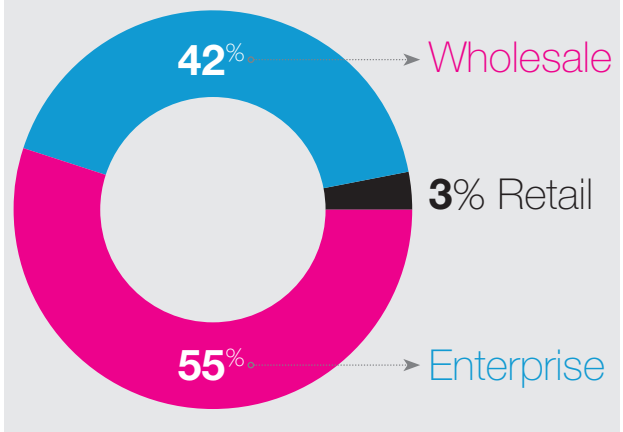
Its fibre network provides connectivity from all of the five main subsea cable systems landing in Africa; WACS, EASSY, SEACOM, SAT3 AND TEAMS.

Liquid Telecom is also Africa's leading provider of cloud-based services, such as Microsoft Office365 and Microsoft Azure. Across its operations, Liquid Telecom is committed to driving Africa's digital future.

Liquid Telecom Kenya Liquid Telecom Kenya launched in Kenya in 2013, with the group's acquisition of Kenya Data Networks (KDN). It has since invested heavily in its countrywide infrastructure and product offering to achieve consistently strong sales growth. Staffing levels have also risen, by 33.47% to 335 by the end of 2018.

The company's fibre network in Kenya continued to extend to over 7,500km country-wide. The company also began developing fibre internet capacity on KETRACO's 1,791.5km of existing electricity transmission network under the new partnership between the two.

Revenue distribution chart



Liquid Telecom Kenya will also provide internet on 8,000km of new optical ground cable (OPWG) that it is due to build along KETRACO's power transmission lines by 2020.

Liquid Telecom Kenya has now provided internet infrastructure to all 47 of Kenya's counties. It has further expanded its data storage capacity at its East Africa Data Centre and collaborated with academic institutions to launch a new data analytics centre focused on data-driven research for African businesses

Improving Customer Experience

New customer surveys

Liquid Telecom Kenya recruited an international customer relations specialist to conduct monthly customer surveys across the company's past, existing and potential customers. The surveys raised problems in ten networks serving over 700 customers in Westlands, Eastleigh, Mombasa Road, Mlolongo, Athi River, UNEP area, and Parklands. The company changed their networks from a topology of spurs to rings and fixed 150 switches, but then found some links were suffering repeated power failures. It thus introduced power inverters and backups, increasing the customer satisfaction rate from 20% to 100%.

In 2018, the company also upgraded internet speeds to retail customers from 1Mbps to 8 customers to 1Mbps to 3 customers, which significantly improved their browsing speeds. The company estimates this initiative directly reduced customer complaints by 20 per cent.

Real-time customer service

Liquid Telecom Kenya's turnaround time on fibre cuts is now four hours, down from 6-24 hours the previous year. It segmented customers into platinum, gold, and others, assigning dedicated teams to each client and developing an escalation matrix that gave them access to the head of customer experience and to the CEO. Platinum customers also now have their own dedicated WhatsApp group to communicate issues promptly. This has led to an improvement in customer response time from 24 hours to real time.

Supporting Kenya's mobile services

Liquid Telecom provided connectivity to four base stations in Nakuru, Nyeri and Nairobi for Project Loon, the network of stratospheric balloons designed to bring Internet connectivity to rural and remote communities.

The balloons need ground base stations to connect to internet links and content providers. Liquid Telecom linked the Loon's ground station to the East Africa Data Centre on a 100Mb link.

The company also connected 190 Telkom Kenya sites to power its 3G and 4G sites across the country.

Cutting Downtime

Liquid Telecom Kenya's partnership with KETRACO's Optical Ground Wire saw it gain a third link between Mombasa and Nairobi, increasing the uptime rate on its link to the international undersea fibre highway.

Infrastructure sharing

Liquid Telecom Kenya shifted to overhead fibre in areas of intensive road construction. Currently, the company's fibre is 95% underground and 5% overhead. However, the company was incurring triple costs whenever a temporary relocation was needed - for digging up fibre, placing it temporarily overhead, and then relocating it back afterwards. In 2018, the company mapped out areas of intensive construction including Ngong Road, and the Western Bypass link and switched to overhead fibre cables, saving up to 40% in costs.

It has also partnered with Telkom Kenya-Airtel, Safaricom, Wananchi and Seacom to share poles and fibre connections and build infrastructure as a joint venture, and thenco-leasing each other's infrastructure. It costs Sh2,200,000 per km to lay fibre. The payback period of acquiring long term leases is approximately ten years meaning these partnerships save 30% cost of building fibre networks.

In 2018, Liquid Telecom also shared its infrastructure with Telkom Kenya in Thika, Tala area, Webuye and along Ngong road.

Ethics in the workplace

Liquid Telecom Kenya manages a diversity diverse workplace, of employees from different nationalities, ethnic and educational backgrounds, working as permanent and as casuals. The company values its staff and their welfare and has continued to build support for its employees and families.

Medical benefits

In 2018, the company carried out a review to identify medical covers that were being exhausted before renewal date and to further improve the services rendered to staff. This led to a series of extensions to cover, including for psychiatric and maternity care.

The human resource department also conducted a wellness program that included quarterly health talks, monthly health nuggets shared with staff, bi-weekly zhumba for staff and quarterly voluntary medical health checks at the office.

Staff engagement

Liquid Telecom Kenya has been able to raise employees' engagement levels as measured by annual survey through monthly town hall meetings with CEO, regular departmental meetings and five jobs rotations in the year. For instance, the CEO sat at the call centre desk for a week, the HR manager sat at the reception desk, and top-level executives went to meet clients, while others carried out the cleaner's role. This exercise led to the elimination of some processes, such as visitors' entry paper work at the reception desk and, overall, increased respect for other people's job roles.

The company guarantees employee's career growth through internal promotions, promoting 18 staff in 2018, 10 men and 8 women. It also supports employees' work-life balance through flexi-hours, with staff able to report to work from 7:00am to 9:00am and leave from 4:00pm to 6:00pm.

Medical benefits	Outpatient limit access	In-patient limit access	Comments
	250,000	1,700,000	Enhanced cover for psychiatric inpatient care based on the greater awareness of mental health needs

Maternity Care services	Outpatient limit access	In-patient limit access	Comments
Benefits/ family	150,000	within inpatient	Normal delivery, subsequent & elective CS & maternity complications before and after delivery including confinement
		within outpatient	Antenatal and postnatal
	200,000	within inpatient	First emergency caesarean section
	400,000	within inpatient	Prematurity and congenital conditions

Employee Gender Balance

Liquid Telecom Kenya maintained the men to women employee ratio at 3:1. The company complies with all labour laws and related regulations.

Employee Gender Balance

Employees	Male	Female	
	74%	26%	
	Permanent	Temporary	Casual
	248	22	65
Engineers	Male	Female	
	89.7%	10.3%	
Sales	Male	Female	
	60.4%	39.6%	

Graduate training and talent development

Liquid Telecom Kenya has a partnership with Strathmore University to take up interns through the Presidential Digital Talent Program that aims at building ICT capacity for the country.

The company runs graduate training and internship intakes twice a year. In 2018, the company trained 15 graduates in engineering and business management and absorbed three into permanent employment.

It additionally offered 12 internships for six months training within the company including additional deserving students who did not apply through the PDTP. Direct applications account for two of the internships in 2018.

Employees' Compensation

Liquid Telecom Kenya reshaped its overtime model in 2018, so that employees could get either monetary compensation or extra days off when overtime was needed, for example, because a client requested a project to be fast tracked. In one case in 2018, a client sought to have a 14-week project completed in just six weeks. The wider choice on compensation motivated engineering staff to take prolonged projects away from their families as they were assured of fair time compensation.

Reducing Injuries for Engineers

In 2018, the company purchased Osha certified Zn rated shoes for its workers and engineers to enhance safety. These shoes protect the limbs of the engineers so that they do not get injured in case anything falls on them. There were zero injuries reported from engineers during the year.

Celebrating staff

During the 2018 Valentine's Day, the company honoured the ladies with roses and chocolates to appreciate their role in the company. In addition, on Women's Day 2018, the company organised an all ladies breakfast taking pride in the women in technology.

Liquid Telecom Kenya also participated in Brand Kenya's Kenya Fashion Fridays Challenge. The six-week challenge was designed to honour Kenya's diversity through adopting African wear every Friday between July & September 2018.

The company held its end of year party on 11th December 2018 for the entire staff, to celebrate the year's achievements and fun. Staff also brought their children to work during Liquid Telecom Kenya's kids' day the same month for an entire day to meet up and have fun.

Responsible parking of vehicle

In 2018, a Twitter user raised a complaint after finding a Liquid Telecom branded car blocking the walkway at the company's HQ in Sameer Business Park following from new limits on car parking spaces. Sameer Business Park management installed a new parking management system that had barred access to previously available extra parking space in the buildings' basements. Liquid Telecom Kenya secured 40 parking places in the basement to ensure service parking for the company's clients and staff.

Fleet Management Policy

Liquid Telecom Kenya in 2018 launched a fleet management policy that all of its drivers signed. The policy prohibits the use of company vehicles for private activities, and lays out the drivers' legal and safety obligations, which must be adhered to.

Each driver and vehicle is assigned a specific operation zone to prevent accidents due to unfamiliarity with roads, and specific business hours from 5:00 am to 6:00 pm. Any vehicle driven outside these hours or outside its assigned zone must get authorisation, which can happen when teams need to respond to a network fault. If vehicles move outside of their assigned hours or zones without authorisation, the fleet manager is able to switch off the vehicle remotely.

In 2018, the company introduced Mondo Ride in place of dedicated cabs that the company had contracted to shuttle staff who work at the Customer Service and Network Operation Centre, saving Sh5,000 a day.

Social impact through innovation

Liquid Telecom launched an innovation programme in 2018 with the aim of driving its internal technology and developing partnerships to achieve social impact and economic development across Africa. The innovation unit is headquartered in Kenya. During 2018, the programme brought a state-of-the-art, nationwide, Internet-of-Things (IoT) network to the country, created a data analytics lab and then an IoT laboratory for developers and companies, and supported multiple partnerships developing IoT applications with social, environmental, and economic impact.

Internet of Things network for Kenya

Liquid Telecom Kenya rolled out Sigfox's Internet of Things (IoT) network across the country in August 2018, in a first for East and Central Africa. The IoT network is a low cost, low energy consumption, long range network and will provide IoT infrastructure for 85% of the Kenyan population.

The new IoT base stations are connected to Liquid Telecom's fibre network to deliver guaranteed reliability and speed in connecting sensors across all sectors, including agriculture and fishing, transport and logistics, utilities and energy, heavy industries, retail, and banking and insurance. It will also be used for smart cities projects and in wildlife conservation.

Partnering IoT start-ups

Liquid Telecom Kenya is working with incubator hubs and universities to enable students and start-ups to develop IoT solutions locally.

Curbing Air Pollution in Kenya

In December 2018, Liquid Telecom Kenya partnered with Code for Africa to map air pollution in the country, following warnings that air pollution is among the top causes of premature deaths in Kenya. Code for Africa, the continent's largest non-

profit civic technology network, aims to install air quality sensors at 3,000 sites across Kenya.

Liquid Telecom Kenya began installing the IoT sensors a pilot exercise in Nairobi with 60 air sensors. The pilot has confirmed widespread and dangerous air pollution in the city, supporting estimates from the Global Burden of Disease Study (GBD) that 20,739 Kenyans are dying each year from air pollution.

The expanded network of citizen science sensors will provide detailed neighbourhood measurements of airborne pollutants every 2 ½ minutes, giving citizens, journalists, researchers and regulators access to real-time data via a simple public dashboard with gauges and easy alert options for their specific neighbourhood.

Pilot partnerships with civic watchdogs, such as community radio stations in Mukuru Kwa Njenga, Kibera, Korogocho Riruta, and Mukuru Kwa Reuben are already producing investigative results.



Code for Africa technologist Emmanuel Evance demonstrates sensors. AFRIKA air quality hardware kits at schools in Tanzania's Mbeya district. Photo: Code for Africa / Emmanuel Feruzi

Boosting fish farming

Fish production has fallen in Kenya as farmers grapple with accessing high quality feeds, maintaining fish health, and marketing their fish. To help increase output, Liquid Telecom deployed an IoT network in Western Kenya and Nyanza in 2018 to monitor and protect freshwater fish populations, initially by connecting ten pilot-phase IoT sensors that monitor water temperature and pH values in ponds.

The sensors send information and feeding instructions to farmers through an Android and iOS app called AquaRech developed by the Kisumu innovation technology hub LakeHub and developers Pinovate. Farmers are saving 20% of feed when feeding is corrected for temperatures using smart sensors readings through the AquaRech App. Overfeeding fish leads to wasted feed and polluted waters that become depleted of oxygen causing premature fish deaths.

Protecting endangered species

In the last quarter of 2018, Liquid Telecom Kenya deployed an IoT network around the Mount Kenya region and extended it to the OI Pejeta conservancy in Nanyuki. The conservancy used the network to test animal tracking collars fastened on cows to track their movement and test the collars' durability as the first step in developing a solution to protect endangered wildlife in Kenya and the world.

Launch of Strathmore Data Analytics Centre

Liquid Telecom Kenya in January 2018 announced a partnership with Strathmore Business School (SBS), the graduate business school of Strathmore University, to launch a data analytics centre for African businesses. The laboratory has provided companies with the tools and learning they need to use their data on customers, purchasing, and behaviour to achieve real improvements in their business performance.

Liquid Telecom provides the Strathmore Africa Analytics Data Centre with dedicated rack space and colocation services at East Africa Data Centre (EADC); the region's largest and only Tier III certified data centre.

Launch of Strathmore IoT lab

Liquid Telecom Kenya also partnered with SBS to build an IoT lab for university students across the region who are pursuing sciences, technology, engineering and mathematics (STEM) in research and development of automated systems using IoT network.

The IoT lab is a first for Kenya and comes as part of a joint venture led by Liquid Telecom Kenya in a three-year support agreement with iLabAfrica, a Centre of Excellence in ICT innovation and Development based at Strathmore University.

The lab is equipped with the components necessary to make automatic gadgets and sensors, including microprocessors from Atmel family and ARM, Sigfox modules (dev kits-ATA8520, SFR10R1), Software Defined Radios (Lime, RTL-SDRs) and other Low Power Wide Area Network connection (LPWAN) modules.

The IoT developed in the lab will provide automated systems for functions such as monitoring cars, dustbins, desks, soil, water, parking spots, water tank, street lights, manholes, and fridges.

Caring for the environment

Creating a sustainable data centre

In February 2018, East Africa Data Centre (EADC) announced a partnership with Distributed Power Africa (DPA), a dynamic African renewable energy solutions company and a subsidiary of Econet Global, to install solar panels on its premises. The shift will save the centre Sh4.5m a year in power costs.

DPA has set up solar panels on the data centre’s rooftop utilising all available space to maximise solar power output, providing daytime running of the facility and acting as a backup in times of power blackout from the Kenya Power mains. This initiative has pushed its dependency on green power to 72.6%.

EADC is one of very few Uptime certified data centres in Africa, housing critical data for clients, including cloud services and data back-up on servers. Its investments in green power are in line with strategic efforts to curtail global warming effects from the use of fossil fuel to generate power. Globally, data centres are now consuming around 3% of the world’s total electricity supply, with their power consumption growing at about 4% a year. Data centres are therefore going green to conserve the environment and reduce operational costs.

The solar project being constructed at EADC is a 25-year asset specifically designed for mature telco processes.

Setting an environmental baseline: our carbon footprint

In the first two years of executing its commitments under the Kenyan Code of Ethics for Business, Liquid Telecom Kenya conducted individual audits of its power use at its headquarters on Mombasa Road, Nairobi, and at the EADC, also in Nairobi.

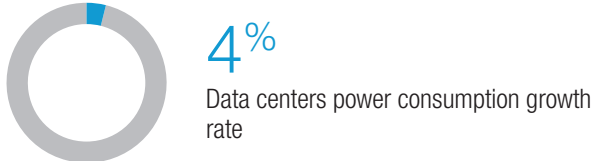
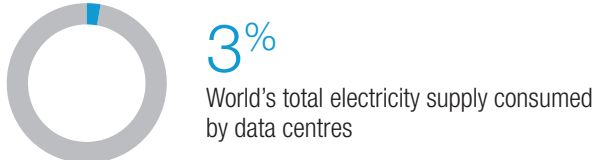
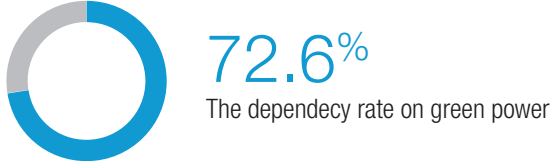
As a result of these audits, it converted lighting to low-energy lighting. The company has also audited its vehicle fleet, and its nationwide generators and implemented two waves of moves to energy efficient.

However, in 2018, Liquid Telecom Kenya, took a more comprehensive approach to measuring its impact on the environment, by calculating its carbon footprint, through a baseline audit across all business activities. The purpose of establishing the baseline is to monitor and reduce the company’s creation of Carbon Dioxide (CO2), Methane (CH4), and Nitrous Oxide (N2O).

To this end, the company measured all energy consumption and all emissions, as well as the emissions generated during the course of the production of its fuels, for all energy consumption across the company’s nationwide base stations.

Shs4,500,000

The amount that will be saved in power costs in a year, through a dynamic renewable energy solutions.



Carbon Footprint for 2018-19 (March 1st to November 20th 2018)

Stationary Source Fuel Combustion – Base station

	Liquid Telecom Kenya
CO2 (kg)	25,921.0
CHa (g)	1,040.9
N2O (g)	203.1

In addition, the total amount of electricity purchased by eGRID Subregion for Sameer Business Park and LT Kenya's hub sites was 887,214 kWh emitting 52,966 kg of CO₂.

Mobile Source Fuel Combustion and Miles

	Liquid Telecom Kenya
CO2 (kg)	284,817
CH4 (g)	3,556
N2O (g)	3,347

Liquid Telecom Kenya also audited the fuel usage by its technical vehicles. The heavy-duty vehicles used for technical operations covered a total of 1,120,971 km and consumed 105,586.42 litres of diesel, thus an average of 11km/ltr from 1st March to 20th November 2018. The Year of manufacture of these vehicles is between 2009 and 2018.

Employee Commute Data

The company additionally assessed the pollution generated by employees commuting to work, and by the use of air travel in the course of employee's company duties. Most employees travel to and from work using the company transport, followed by those who drive their own personal vehicles, and one fifth who commute by public transport.

Number of	% of Employees who...			Average one-way
Employees	drive personal vehicles to work	take public transport to work	use LT company transport option	distance from home to office (km)
250+	26%	20%	54%	15

Employees' commuting generated a total of 116,382kg of CO₂, 4,365g of CH₄, and 3,087g of N₂O.

Meanwhile, employees who travelled by air for work travelled a total of 913,102km resulting to 92,008kg of CO₂, 454g of CH₄ and 2,953g of N₂O emissions.

LT Kenya employees who travelled for work by road or other ground means covered 311,241km leading to emission of 31,362kg of CO₂, 155g of CH₄ and 1,007g of N₂O.

Waste generation

The company disposed approximately 60Kg of waste every day. In 2018, a total of 16 tonnes of waste was collected by the Nairobi Water and Sewerage Company

Going green

The company had no emission resulting from boilers and steam as it uses none.

On-site renewable energy projects (solar or other) in Daadab and Liboi each has a 1.2kWp solar hybrid system with zero carbon dioxide emission.

Social Responsibility – CSR

HOREC

Liquid Telecom Kenya donated Sh750,000 to the Horec Children’s Home, while staff made additional donations of food, clothing and funds. A total of 47 staff and their families also took part in a sponsored walk to raise funds to buy a van for the children.



Customer Service Week

Fifth birthday

In 2018, Liquid Telecom Kenya enjoyed its fifth birthday, marked with a cake for staff, and cakes for customers too. For five days during October’s Customer Service Week, staff took turns visiting customers with surprise giveaways, including branded cakes. The company also ran a ‘database roulette’ providing free

upgrades to randomly chosen customers’ internet speeds, and gave away gifts at reception to visiting customers.

Feel good event

Staff were not left out of the ‘feel good’, and were given a surprise breakfast and gift by HR, paired in a peer review to share mutual compliments, and booked into a job rotation that saw, for instance,

the IT manager take over the cleaning job and dust tables and arrange furniture.

Scavenger hunt

On 13th October, the company organised a Customer Experience Scavenger Hunt “in the wild” at Karura Forest, testing the customer service acuity and mental acumen of competing teams in a contest for prizes.

Gaming communities supported by Liquid Telecom Kenya

Liquid Telecom has supported the gaming community including;

- Supporting Ludique Works - the convener of the Africa Game Developers Community by hosting their local Gaming meetups here in Nairobi.
- Sponsored booths for the Africa Game Developers Community to showcase their games at the East Africa Gaming Convention

- KUKUA GAMES - Sema Run (Sema’s mission is to help millions of children acquire basic literacy and numerical skills and begin a magical, life-long, learning journey.s)
- BROKEN HELMET - The Orchard (Based in a fictitious Kenyan district, The Orchard revolves around the main character, who has inherited a farm from a late uncle and aunt. However, due to a number of legal issues, when the property is finally issued, it has fallen into a dilapidated state.)

Gaming Events: driving the rise of E-sports in Kenya and Africa

In July 2017, Liquid Telecom Kenya launched a five-year initiative to boost Africa's gaming industry, under which the company has run and supported launch pads, forums and training sessions continent-wide for game developers. Gaming is emerging as an industry in Kenya and East Africa, with growth of 25% a year or more, and African games and gamers moving into the global arena. Globally, the industry makes sales of over \$100 billion a year.

The company partnered with the Nairobi Comic Convention (Naiccon) to host Africa's first international multiplayer video game tournament at the Sarit Centre in Nairobi in July 2017. The participating teams and winners were awarded cash prizes worth \$1,500, the highest prize at the time. A total of 16 PC and console gaming teams from Uganda, Rwanda and Kenya participated in the tournament, which brought together over 3500 creative minds in the animation, gaming and comic book industries. The company sponsored national gaming teams from Uganda and Rwanda to attend the championship.

The company also provided 200Mbps of uninterrupted internet supply to enable streaming on different sites within the event and host a LAN Party on the same connectivity.

Liquid Telecom has additionally sponsored a Ugandan gaming community, www.gamersnights.com, for the past six years. Uganda hosts gaming servers used by local gamers and across East Africa. The closest gaming servers were previously in the USA and Europe, which slowed online gaming with a latency of over 200ms. But, now, online gaming in the region is seamless with a latency of less than 20ms.

The company has also been delivering free 'gamer-quality' internet connections. On April 7th 2018, Liquid Telecom Kenya provided a 250Mbps unlimited internet connection for competitors in a Mortal Kombat XL tournament at a Pro Series Gaming event held in Nairobi, at the Prestige Cinema. The

gaming event was the first to offer a cash prize of Sh1,000,000 (\$10,000) in East Africa's largest gaming prize yet.

The company has since enhanced speeds for gamers. In August 2018, the company supported the Asylum Comics and Gaming Event at Nairobi Hospital Convention Centre and provided 1GBps internet connectivity for gaming and LAN parties.

Liquid Telecom Kenya's initiative to support the East Africa Gaming Convention over Easter 2018 provided a launch platform for several new PC and mobile games created by Kenyan developers including 'Recce Squad' by Scrin Arts, and the role-playing PC game 'The Orchard' by Broken Helmet developers.

During 2018, gaming developers also formed the Africa Game Developers Community, which has now grown to 40 members in Kenya and more than 80 across Uganda, Tanzania, Ethiopia, Cameroon, Zambia, and Ghana. This developer community, with Liquid Telecom Kenya's support, accesses free co-working space and internet at Nairobi Garage for monthly meetings, and also receives sponsorship for workshops and events where they showcase game applications.

Liquid Telecom has also provided cloud resources for gamers developers in the GoCloud initiative, supporting over 100 start-ups across seven African markets and more than 50 developers, including Wazinsure in Kenya, and Campus Bee in Uganda, as well as challenges such as the Uber – Mobiticket Traffic Jam Challenge, which challenges data scientists to predict demand for public transport routes by extracting and creating their own data sets using the Uber Movement tool.

Liquid Telecom Kenya also supported the Global Game Jam in Kenya, Rwanda, Uganda & Zambia, and Phil Spencer's first visit to Africa with the gaming community in Nigeria.

I Anti-Corruption

Preventing Corruption

It is the policy of the company to maintain the highest standards of honesty, integrity and ethical business conduct for its employees, suppliers and customers. The company's standards of business operations are as described in the KEPSA's Code of Ethics of doing business in Kenya.

In 2018, all staff filed their annual-self declarations forms giving information about their business interests and any other connections that could present a conflict of interest. The company also conducted fraud awareness training for all staff, supported by posters throughout the office raising awareness around the Code of Ethics. The CEO additionally conducted refreshers on the Code of Ethics during the CEO townhalls, the regular monthly meeting for all staff.

Whistle-blower Policy

In November 2018, Liquid Telecom Kenya adopted Liquid Telecom Group's whistleblowing policy to enable staff to report anyone suspected of conducting business in breach of the law or of its Code of Conduct. The ethics line set up under the new policy was outsourced to management consultants Deloitte, which protects any whistleblower's confidentiality.

As part of this Policy, Liquid Telecom Kenya has worked to:

- ➔ establish a culture of disclosure, so that employees can responsibly and safely report and disclose information about unethical activities;
- ➔ encourage all employees to disclose unethical activities related to the Group, its customers, partners and suppliers; and

- ➔ ensure that any employee who reports an incident will not face reprisal in their work environment.

The policy creates reporting channels and identity protection for whistleblowers so that staff can report anyone, including senior level management, confidentially and anonymously. Investigations and reporting is then handled by Liquid Telecom and the Group Audit and Risk Committee, which takes corrective action guided by the relevant policies, procedures, contracts and legislative requirements.

Whistleblowers can contact Group Internal Audit directly by:

- ➔ Email at ethics@liquidtelecom.com.
Or they can use the independent ethics reporting line run by Deloitte's on:
- ➔ 0800 722 626 in Kenya or by
- ➔ Email on liquidtelecom@tip-offs.com,
- ➔ or by using the online reporting channel through www.tip-offs.com.

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