

FUTURE OF AFRICAN BROADBAND

The Future of African Broadband summit, held at Lancaster House in London, brought together thought-leaders, policy-makers and the private sector to address the economic and social challenges in Africa today and how connectivity could help. The key themes



addressed by the panels included how broadband technologies will enable economic growth, provide sustainable digital education, digital enablement for SMEs and connected communities, no matter how rural they are. All these topics create

a sustainable and opportunistic economy. Justine Greening, Secretary of State for Education, spoke of the "internet revolution" and how connectivity was key for not only education, but social and political growth. A number of Africa's

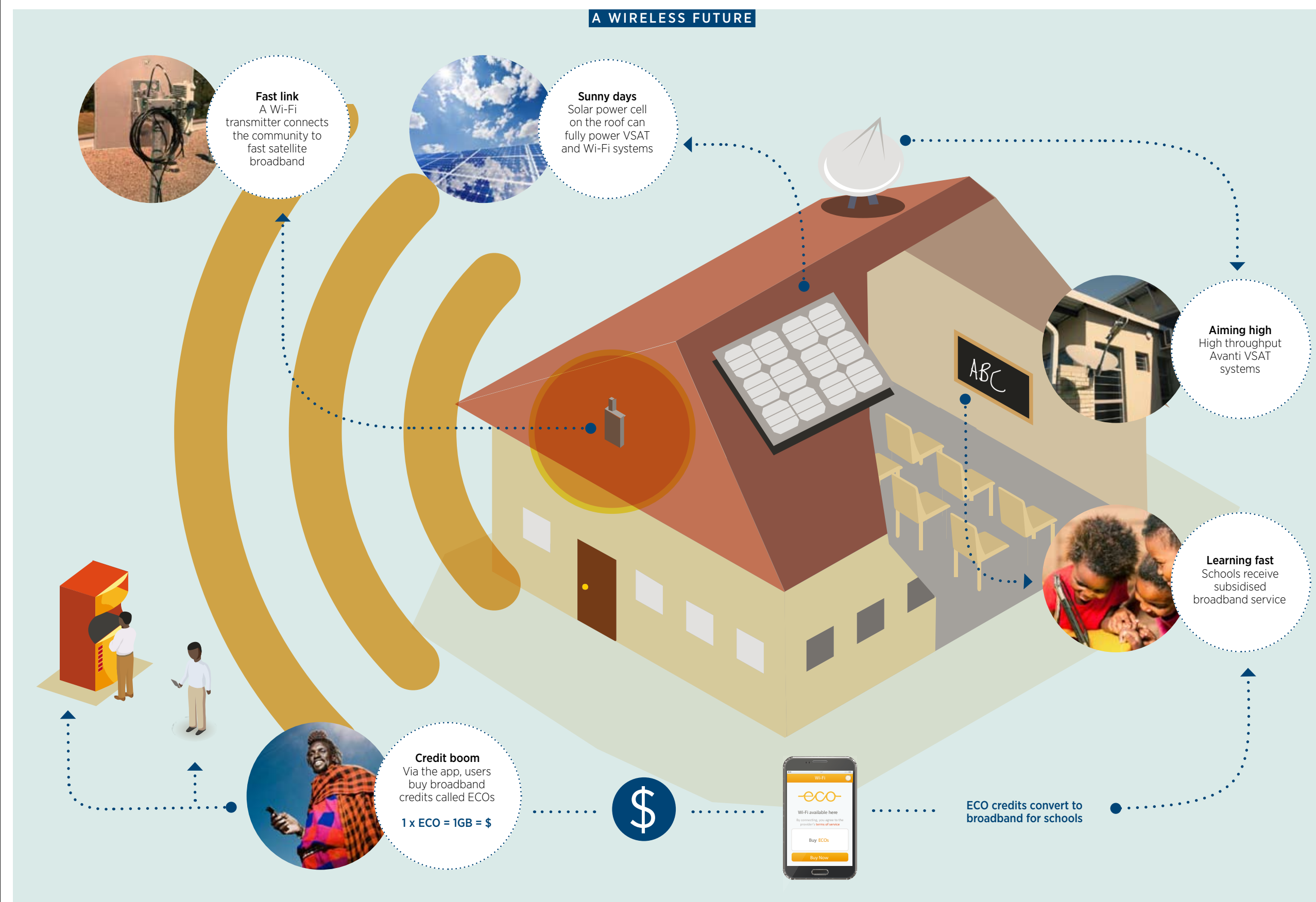
telecom operators, including Telkom Kenya, Safaricom, TelOne, MainOne, Millicom and Coolink, spoke of the challenges of providing universal broadband coverage to the continent. By combining terrestrial networks with satellite and Wi-Fi technologies, reaching



the unconnected could be accelerated to help bridge the digital divide. David Williams, chief executive of Avanti Communications, asked the audience for one important action; to pledge their commitment to the future of African broadband.

Making the connection at school

The ECO initiative from satellite operator Avanti Communications aims to deliver 500,000 connected communities across sub-Saharan Africa by 2020



How to change lives with connectivity

Why breaking down barriers is the key to growth in Africa



This summit takes place at a key moment in terms of the internet revolution we're all part of. That was the opening message to the Future of African Broadband event from Justine Greening in her keynote address, which asked the question: "Is connectivity the key for growth?" According to Ms Greening, it is. "In so many parts of the world we've seen transformation driven by technological change. The latest developments in mobile technology are having an impact – perhaps instantaneously – in parts of sub-Saharan Africa."

However, most of sub-Saharan Africa is offline and getting the population connected is key to growth. Increased spending by the Department for International Development (DfID) on driving growth and jobs ties into connectivity. Ms Greening, speaking in her previous role as International Development Secretary, said: "Connectivity is also driving social and political change." Internet access is improving education in remote areas, enabling financial independence through e-banking, enabling people to demand more transparent governments and even driving better diagnosis and treatment of illness.

She cited a programme combining smartphones with GPS software in areas where the risk of the eye infection trachoma is highest. But African women are much less likely to own a phone than men. Ms Greening said: "Girls and women isn't a niche issue; it's half the population. If we're not looking at how we have access for everyone, this amazing technology that will change people's lives for the better will only have half the impact."

Governments also needed a framework to enable competition and avoid monopolies that can stifle innovation. It's about partnership; Ms Greening said it was vital to eradicate barriers between bodies such as DfID, NGOs and business. By working together values could be unlocked and technology was bringing solutions in surprising areas.



'The net is a great enabler'

Bringing broadband to schools could transform lives in the poorest parts of the continent. Once pupils go online, they can learn skills that last a lifetime

Moderator Daisy McAndrew, former economics editor for ITV News, kicked off the panel discussion entitled "Education and broadband – who should pay and why?" with an unexpected supplementary question: "What do we mean by education? The three Rs? Or educating people to use the internet?" Salim Suleman, managing director of Imarasat, a multinational company based in Kenya, agreed that the most pressing need was to educate people on how to use the internet.

However, Mr Suleman also noted that other very basic questions needed to be asked – questions about connectivity, about whether users have devices and about whether they had a way to keep them charged. He also asked: "If I was to give someone access to the internet, what is the first thing they would do?"

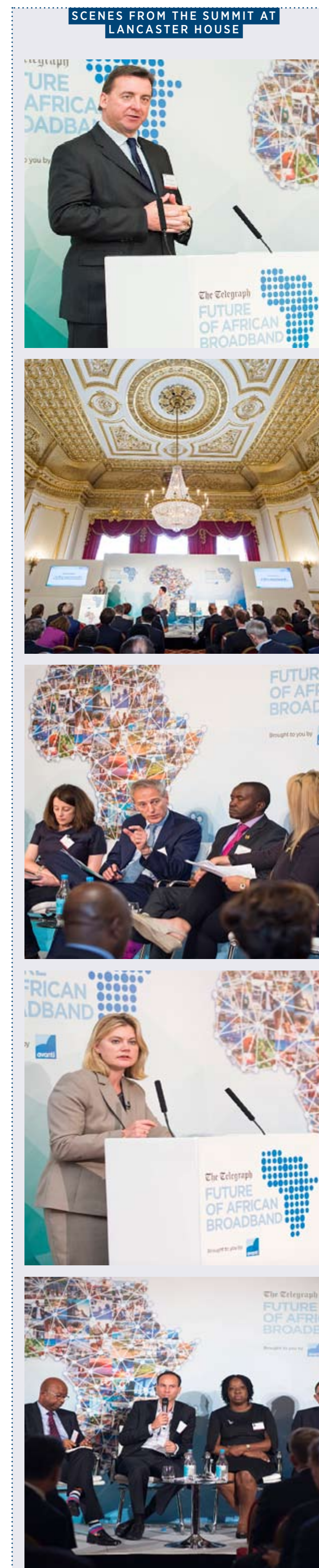
It's all part of something he called "the internet learning curve" – and it takes time. As for who should pay, Richard Maret, chief executive of

Whizz Education, said: "We have a funding gap. Rural users don't have a shilling to spend on this stuff – and if they did they would use it to buy lunch." Rural education was a strong underlying theme of the discussion. Mr Maret said Whizz was founded on the belief that every child deserves a learning experience that caters to their needs and pace of learning. He said he'd learnt from a project with Avanti in Kenya. "We see teachers who've never used keyboards before. In only a year we've got examples of teachers authoring their own learning content." He added: "I firmly believe the internet is a tremendous enabler, but many ICT education projects around the world have failed to deliver a learning outcome".

Msfunke Opeke, chief executive of Main One, was not alone in arguing that while government has a responsibility to get the population online but also for the communities. It would be very cruel to provide it only for the short run."

needs to be involved". She referred to Avanti's initiative ECO, which aims to provide communities and schools in countries across sub-Saharan Africa with access to the internet for education. It's an established truth that connectivity brings growth. However, bringing broadband together with education and to local communities won't come overnight.

Mr Suleman suggested a real return could involve many years of funding. Bob Cullymore, chief executive of Safaricom, noted during the discussion that bringing connectivity to schools was not an altruistic gesture. "The long-term payback of connected schools is enormous for all of us," Ms Opeke said that, whoever pays, "whether or not the focus is on learning how to use the internet or delivering content via the internet, the most important issue is sustainable access, not just for the schools but also for the communities. It would be very cruel to provide it only for the short run."



UNLOCKING THE POTENTIAL OF SMEs

It's vital to increase the pace of digital enablement for entrepreneurs. But high energy costs and access to finance can be barriers to success

There are enthusiastic businesspeople at all levels in African societies and giving them broadband coverage could transform the way they do business. Avanti Communications and internet service provider (ISP) Imarasat are working together to provide broadband via satellite in countries in East Africa, where it is estimated that 11 million Kenyan SMEs make up 45pc of the country's economy – but most have no access to broadband.

How to accelerate SME digital enablement was the theme of a panel discussion at the summit that underlined the diversity inherent in the term SME, which can refer to street traders, builders, retail outlets and much more.

Massmart, a multi-format retail and wholesale group, has more than 400 stores and 50,000 employees across Africa. Its non-executive chairman, Kuseini Dlamini, said: "Our business lifeblood is partnerships with SMEs. The group is looking at new formats for SMEs such as digital platforms to connect the company to its customers, which range from building contractors to restaurants and hotels."

Zlatina Loudjeva, director

for infrastructure and cities for economic development at PwC, said SMEs were a big opportunity. "And how we digitally enable them is how we unlock potential."

Shahin Noori, chief executive of Nigerian ISP Coolink, said most of his company's clientele were SMEs, but added: "The highest cost in any business in Nigeria is energy."

Moderator Liam Halligan, economics commentator for the Telegraph, wondered how connectivity could

“In South Africa, access to Wi-Fi has become an election issue

deliver as Africa has a tiny fraction of the electricity supplied by Europe. It was clear that Government needs to invest in infrastructure. However, Ms Loudjeva pointed to the usefulness of off-grid approaches, solar power in particular. She described a virtuous business cycle enabled by connectivity. Where people have a history of mobile banking and thus a good credit rating, it's easier for them to get loans

to buy solar panels. Because the solar panels can support refrigeration, recharging and other useful functions, there are business opportunities.

The panel also looked at finance to enable SMEs and others to enhance their digital capacity. Ms Loudjeva highlighted a group called Slum Dwellers International, which specialises in moving small businesses into the formal economy, where loans are cheaper.

Leveraging connections across borders was a hope common to all the panellists. Mr Dlamini noted that, in some parts of South Africa, "access to Wi-Fi is an election issue". He also called for more support from big businesses to help SMEs with development, as Massmart does.

Ms Loudjeva called for more peer-to-peer support and for SMEs to help train the next generation of entrepreneurs. Digital enablement is essential, she said. A simple app that tells street entrepreneurs where the crowds are could bring great benefits. "It's one thing to give an entrepreneur a mobile phone with a calculator. It's another to give them a phone that connects to a bank that can help them get a loan and financial services advice."



Screen test Even a simple app that tells street entrepreneurs where the crowds are could bring enormous benefits

THE BROADBAND MAP: JOINING THE DOTS IN AFRICA

The future is about the smart village. Firms and governments must rise to the challenge of connecting remote areas

Ntumba is a village in the north of Rwanda, East Africa, where mobile service provider Millicom has deployed 3G to 25,000 people. "People get excited about smart cities, but for me in Africa, it's more about the connected village," Cynthia Gordon, executive vice-president and chief executive of the Africa division at Millicom, told the Telegraph's Future of African Broadband summit.

By working with the Rwandan government and local partners, Millicom has subsidised smartphones and is backing small traders in a range of microfinance initiatives.

This project is part of Rwanda's Smart 2020 Master Plan to bridge the



Young dreams The advance of mobile technology is having a rapid impact in parts of sub-Saharan Africa but most of the region is still offline

digital divide between rural and urban areas and is an example of what Ms Gordon calls government "best practice".

Bad practice is when governments impose a tax of 30-35pc on handsets, a strategy Ms Gordon sees as incompatible with the view that widespread internet access correlates directly with economic

growth. "If a person cannot afford a phone, let alone a smartphone, then that is useless," she told the summit.

Alto Mareuse, chief executive of Telkom Kenya, agreed, arguing that governments and operators who take a short-term view by hiking taxes and prices risk limiting the market's growth potential.

DATA OPPORTUNITY

For Telkom Kenya, the future is data. "The market is there and our responsibility is to grow it," said Mr Mareuse. Ms Gordon discussed how take-up of data services could be helped if local and global players worked harder to develop and combine their technologies. "We should do a lot more by partnering with other

telecom and mobile operators such as Avanti," Ms Gordon said. Partnerships – particularly public-private ones – which account for 90pc of the European Space Agency (ESA) projects, were crucial in delivering benefits to society and the economy.

Magali Vaissière, director of telecommunications and integrated applications, told the summit: "Thanks to satellite technology, you can make broadband universally available today at very affordable prices and it can be used as a standalone solution or to complement terrestrial solutions."

But delivering universal services is the responsibility of the government. Joseph Mucheru, cabinet secretary in Kenya's Ministry of Information and Communication, said: "Information should be a human right and with the right government policies that should be possible."

Although broadband access is a big issue, poor energy infrastructure are also hindering economic growth, he added. According to the World Bank, in sub-Saharan Africa, just 24pc of the population have electricity and people can pay up to 300pc more per kWh than in other parts of the developing world.

For more information about Avanti and the ECO initiative, visit tgr.ph/avanti and avantipic.com/eco

