Technologies to improve early warnings and climate information services in Africa

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CLIMATE INFORMATION SERVICES

Introduction

Climate - long-term weather pattern in a region, typically averaged over 30 years.

Climate Information - climate variables such as temperature, rainfall, wind, **soil moisture** ocean conditions and extreme weather indicators.

Climate Information Services - Activities that **generate** and **disseminate** climate information in order to assist **climate-resilient development** and inform **climate-related decision-making** as well as **climate-smart policy** and planning.

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Technology

- **Traditional GSM technology**

Voice and messaging services which include sharing early information to users like farmers on our DigiFarm App that cover topics such as improving farming practices, farm safety and crop disease prevention, among others.

This information will help the farmers avoid the adverse impacts of an ever-changing climate.

Technology

New GSM technology

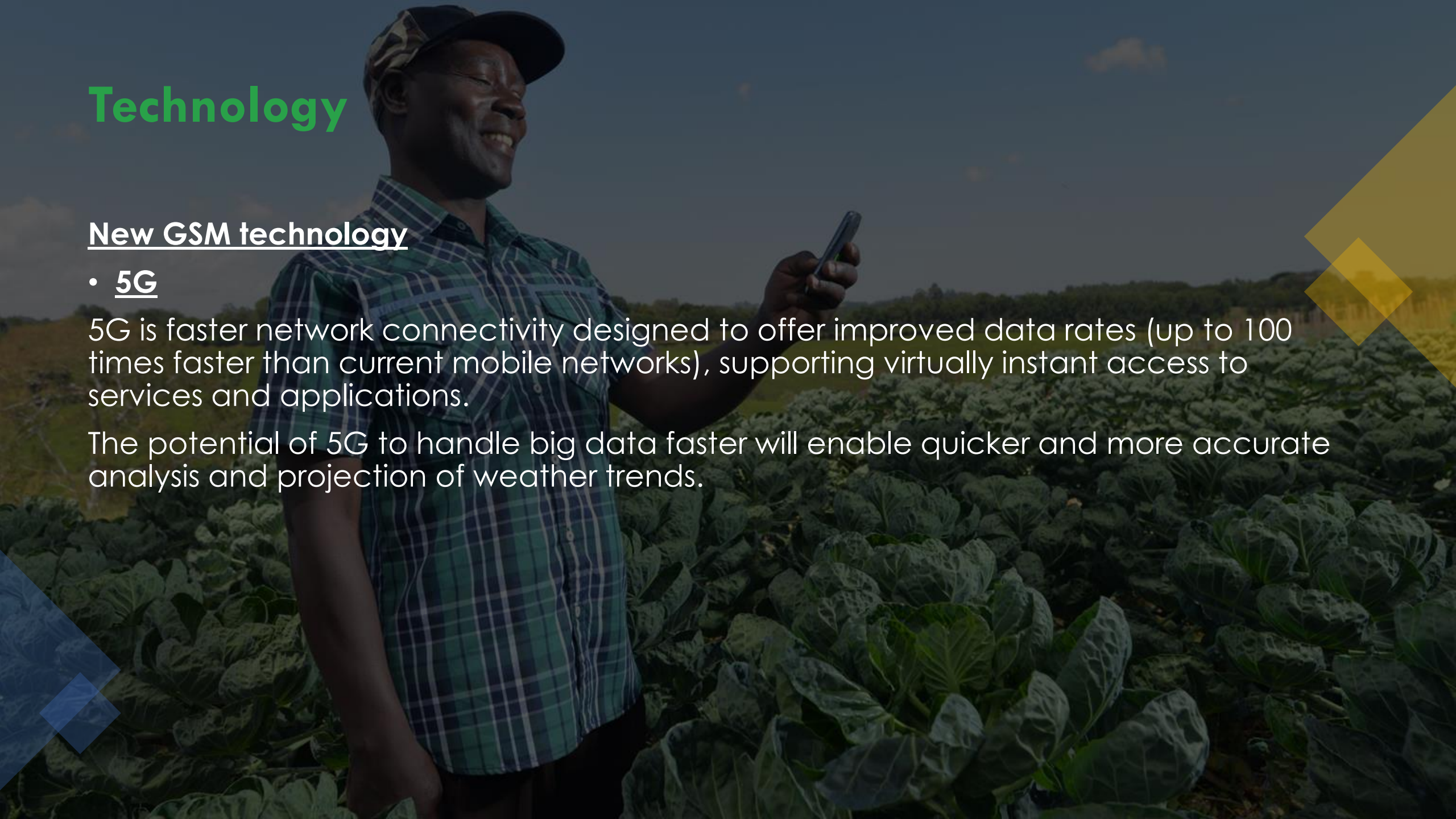
- **Internet of Things(IoT)**

IoT refers to exchange of data between devices and cloud i.e., through sensors.

Safaricom PLC: Partnered with Dedan Kimathi University of Technology to use sensors to monitor climatic data in Safaricom's Forest project.

These data includes soil moisture which will allow the organisation to plan properly on when to plant in order to ensure a high survival rate for the trees.

Technology



New GSM technology

- **5G**

5G is faster network connectivity designed to offer improved data rates (up to 100 times faster than current mobile networks), supporting virtually instant access to services and applications.

The potential of 5G to handle big data faster will enable quicker and more accurate analysis and projection of weather trends.

Summary

Data Collection - IoT technology present a faster way and instant collection of climate information

Data analysis – 5G data will enable faster analysis and analysis of large amounts of climate information

Data dissemination – 5G will also enable faster dissemination of this data to intended users for proactive actions

Possibilities of technology are limitless, as technology advances, predictions on climate will be more accurate then ever, now imagine the possibilities that Artificial intelligence(AI) will bring to the table.

THANK YOU

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