



Smart City Implementation In Kampala

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Together we can transform Kampala city

Outline

- ❖ Introduction
- ❖ Relevance of the Concept of Smart Cities in developing countries
- ❖ Role of local science technology and innovation community in the designing and managing cities
- ❖ Opportunities (in the application of locally relevant technologies)
- ❖ Challenges

Introduction



Introduction

- KCCA is a body corporate responsible for administering Kampala Capital City on behalf of central government subject to the KCC Act 2010.
- The top leadership comprises the elected political leaders and the appointed technical Management which is comprised of Executive Director and 10 Service directorates

Strategy

Vision

To be a Vibrant, Attractive and Sustainable City

Mission

Provide Quality services to the City

ICT Mandate

Building a Smart Kampala City

SERVICE SCOPE

- To initiate and formulate policy;
- To set service delivery standards;
- To determine taxation levels;
- To promote economic development
- To construct and maintain roads and drainages
- To install and maintain street lights
- To organize and manage traffic

SERVICE SCOPE

- To carry out physical planning and development control;
- To maintain law, order and security;
- To perform any other function given to the Authority by the central government.
- To facilitate and encourage employment through youth mentorship & employment bureau

Relevance of Smart City Concept in Developing Countries

Understanding of Smart City

The application of Information Technology to facilitate efficient and effective administration of the city in provision of services

Kampala Citizens Survey

Highlight of Priority concerns from the citizens



I want an organized and cost effective transport system

I want a pothole free Kampala.



I want a clean city.



I want a caring city authority.



I want an effective medicare system.



I want a corrupt free system.

I want a planned city.



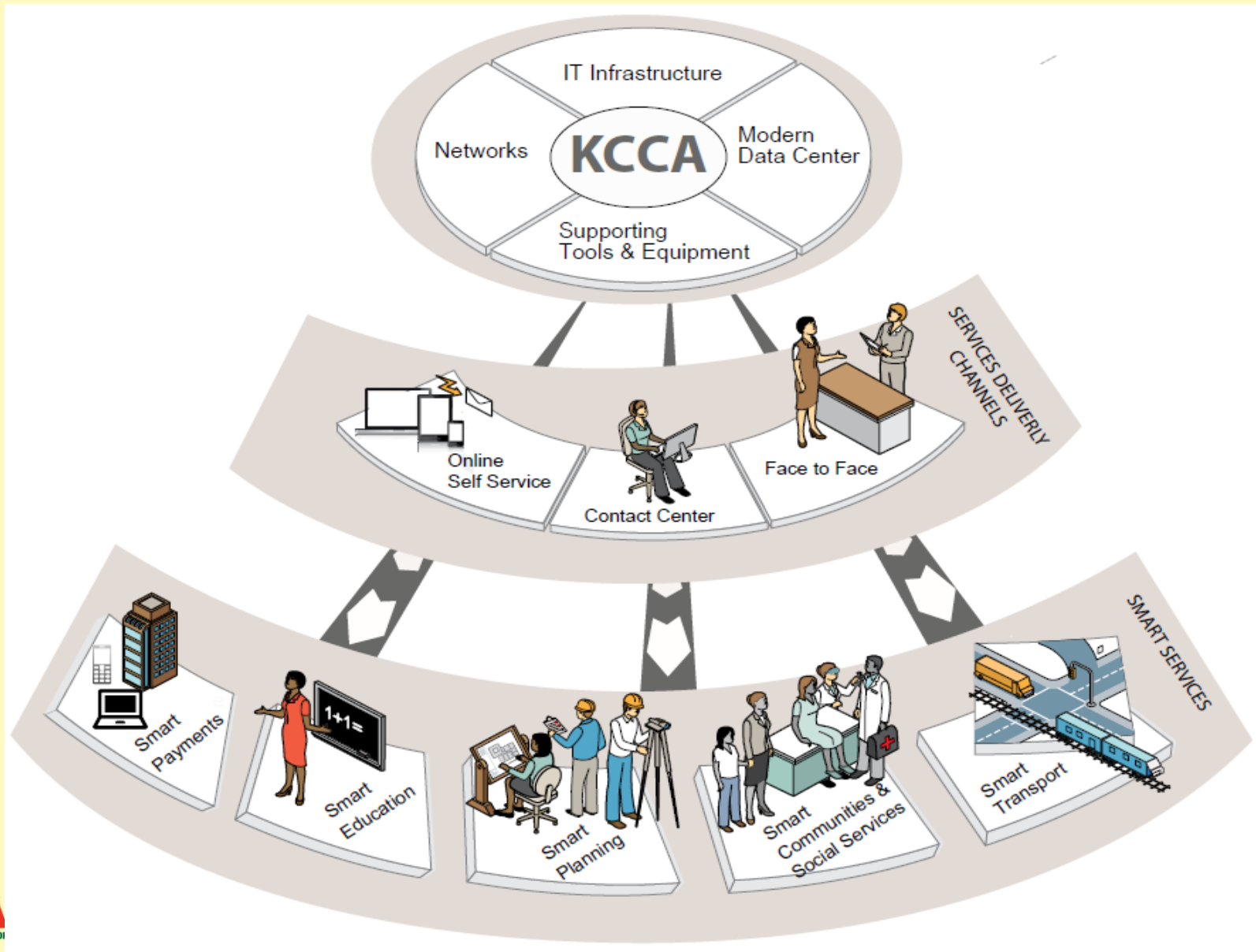
I want a employment



What Citizens want from a Smart City

- Quick service turn around times
- Good communication
- Enhanced electronic Services (Online Self service).
- Improved Mobility and transportation networks
- A planned and development controlled Kampala
- Improve governance and accountability to the Citizens
- Citizen engagement & participation in development
- Improved health services
- Good education services

KCCA Strategy for the Smart City



Relevance of Smart City in Developing Countries

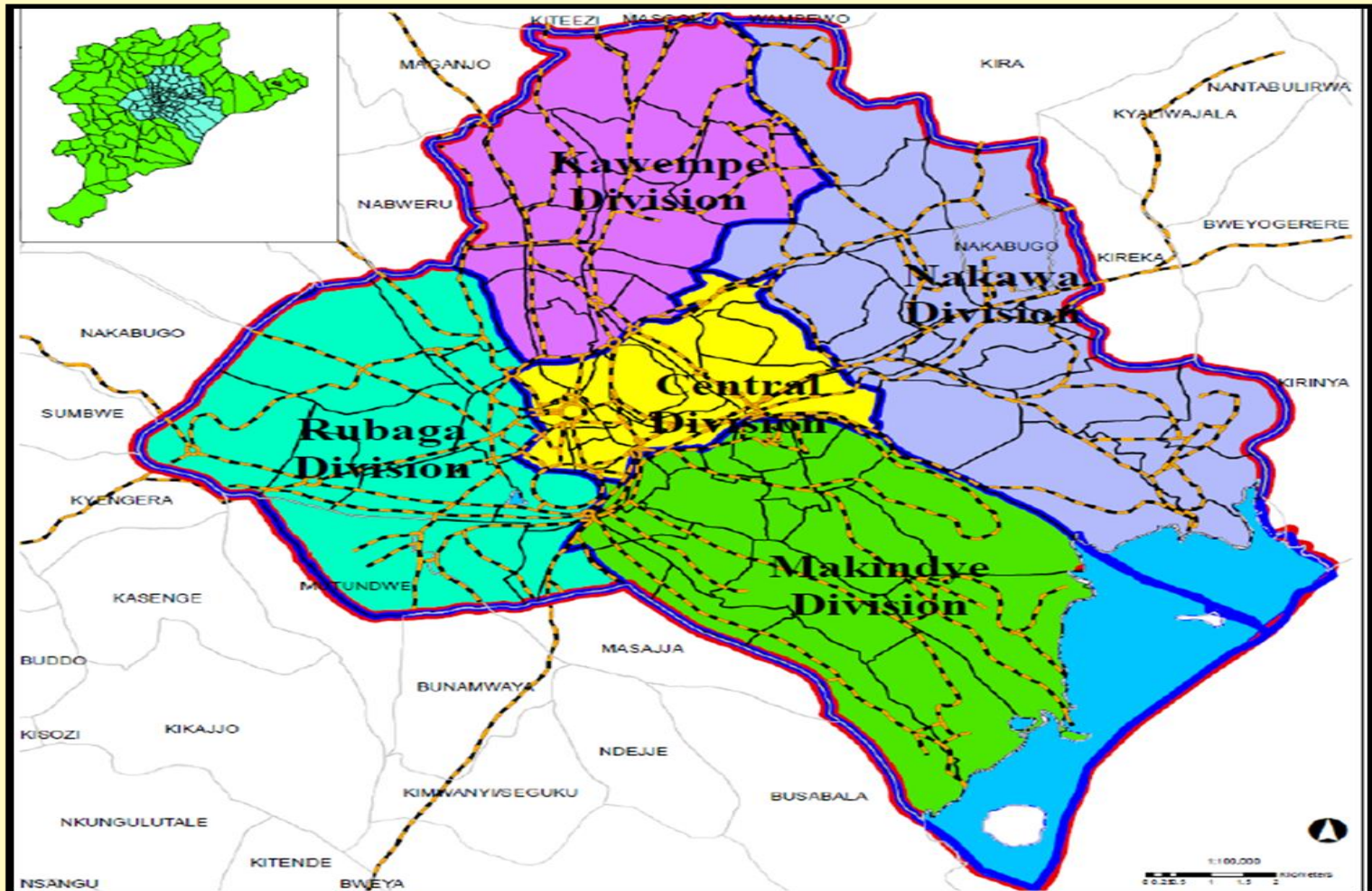
Smart City Implementation is relevant in developing countries if

- It addresses and improves the service requirements of the city administrators and the citizens
- If city administration has the willingness to have it implemented
- If aligned to the appropriate technology that citizens can afford
- If implemented in a phased approach

Role of Local Science Technology and Innovation Community in the Designing and Managing Cities

Role of Local Science Technology

- KCCA just completed an Aerial Geo Map detailed to 5cm to for planning



Local Science Technology

- Availability of the National Backbone Infrastructure that facilitates communication within Agencies and Inter agencies
- Use of the Mobile Technology solutions for both Smart phone and low end mobile users which facilitates business transactions
- Optimization of online communication platforms. Interactive Web portal with over 1.1m visitors, over 100,000 followers on social media platforms. KCCA gets a lot of feedback from citizens

Smart-Payments

- KCCA has automated revenue administration, collection & reporting. This is useful for budgeting.

The screenshot shows a web browser window displaying the KCCA intranet payment statistics page. The URL is <https://ecitie.kcca.go.ug/intranet/payment/statistics/>. The page features a navigation menu with options like Registration, Payment, People, Location, Admin, System, and Support. The user is identified as Martin Ssekajja. The main content area is titled "PAYMENT STATISTICS" and displays seven summary cards for different payment categories, each showing a count and a total amount in UGX.

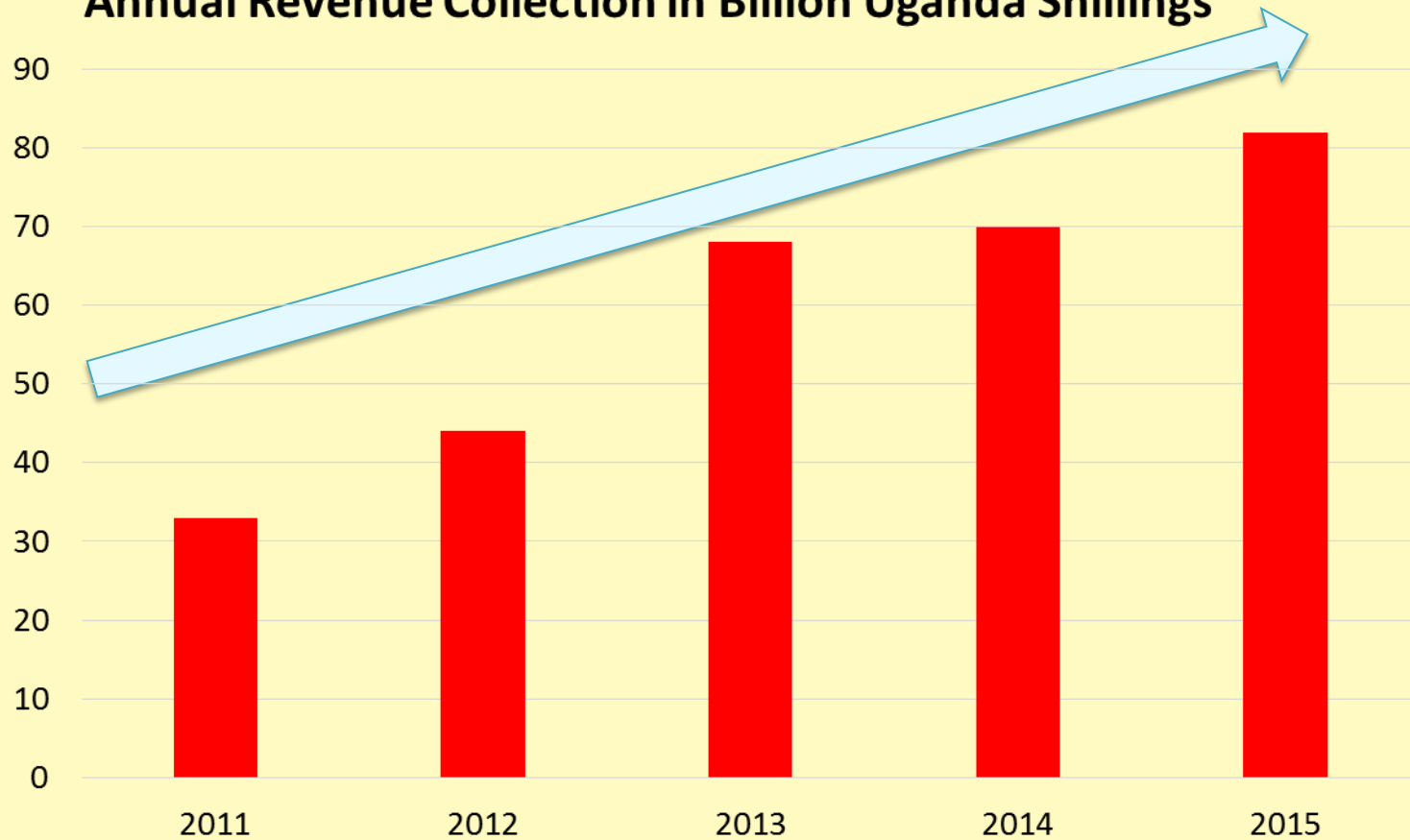
Category	Count	Total Amount (UGX)
TOTAL REGISTERED PAYMENTS	545419	139,358,106,995
TOTAL CREDITED PAYMENTS	477718	91,252,753,430.80
TOTAL PENDING PAYMENTS	2858	2,367,730,883.00
TOTAL EXPIRED PAYMENTS	50254	40,494,082,702.46
TOTAL CANCELLED PAYMENTS	14566	5,182,586,750.00
TOTAL RECONCILED PAYMENTS	468489	87,726,199,181.38
TOTAL RECONCILIATION ISSUES	233	

Navigation menu: Home / Payment / Payment Statistics

Left sidebar menu: Martin Ssekajja Business Admin, Change Password / PIN, Profile Update, Logout, Payment, List Payments, Till Sheet, Register.

Revenue Collection due to Automation

Annual Revenue Collection in Billion Uganda Shillings



Safe City

- KCCA has successfully piloted the safe city project for city surveillance working with Uganda Police Force



Internal Deployments for designing and managing cities

There are a number of internal implementations to support institutional efficiency such as the following

- Unified collaboration for all staff using the intranet, Instant Messaging, video conferencing
- Enterprise content management using work flows
- Developed the KCCA mobile App for smart phone users (download KCCA mobile on Android)
- Deployed short code for USSD and low mobile end users
- Deployed a secure private cloud that can accommodate hosting several citizen applications.

Enterprise Content Management

The screenshot shows the KCCA HOME website interface. The browser address bar displays <http://intranet/sites/home/SitePages/Home.aspx>. The page header includes the KCCA logo and the text "KCCA HOME Home KAMPALA CAPITAL CITY AUTHORITY". A navigation menu lists various sections: KCCA HOME, Directorates, The Authority, Projects, Forms, Help & Support, Divisions, KCCA SACCO, Revenue Training, Staff Blog, and All Sites. On the left sidebar, there are links for "Recently Modified", "New Staff List", "Staff List", "Home", "Reports", "IP Phone Directory", "Pictures", "Kampala City Festival 2014", "ED tours all KCCA recovered properties", "Spear Motors ltd provided a garbage truck to Lubaga Division to collect garage as its CSR", "KCCA Health Inspectors close down Ice-cream Factory in Muyenga Makindye Division 1", and "Libraries". The main content area features a news article titled "KCCA Health Inspectors close down Ice-cream Factory in Muyenga Makindye Division" with a video player showing a group of people in front of a red door. Below the video is a banner for "Avoid any Accident causation" with a "Report any Unsafe Condition" button. At the bottom, a black banner reads "THANK YOU FOR THE TURNING UP AT KAMPALA CITY FESTIVAL 2014 CELEBRATIONS". The right sidebar contains a "Do you have IT Problem?" graphic, a "VISIT ICT VISUAL LI" link, and a "CORPORATE LINKS" menu with items like "ACCESS WEB EMAIL", "Visit KCCA Web Portal", "eCITIE", "DOWNLOAD FORMS", "KCCA REVENUE MGT SYSTEM", "FLEET MANAGEMENT SYSTEM", "PROCUREMENT TRACK", and "CORPORATE CALENDAR".

Role of Innovation Communities

- The Government of Uganda has created a Framework to support innovation by instituting a Ministry of ICT, Uganda National Council of Science & Technology to provide technical assistance in Technology implementations,
- Kampala Special Interest Groups and associations such as traders, Architects provide useful information in terms of expectations implementing Specific Smart City Modules.
- Professional groups contribute through policy formulation because they form part of the top leadership.

Role of Innovation Community

- Academic institutions like Makerere University create room for research in application of technology. KCCA is working with the University of California, Santa Barbara to carry out a research on the effectiveness of city monitors using SMS (Crowd sourcing)
- Kampala has several incubation hubs such as The KCCA Employment Service Bureau, Hive Colab that develop software solutions
- Information Communication Technology Association of Uganda acts as an advisory body to government entities
- ICT service providers such as telecoms provide annual funds for recognition of innovation and Technology

Opportunities in the application of locally relevant technologies

Opportunities

- Complete Automation of all 21 revenue Types. So far all payments are electronic through mobile phones, electronic banking and Point of sale terminals. This improves reporting and public accountability
- Implementation of the Smart Permit: KCCA received a grant from the world bank, so far stake holder engagements are ongoing. The end result will be automation of construction plans and permit processes.
- Computer Address Modeling is ongoing: This will facilitate street naming and assignment of the postcodes

Opportunities

- Computer Aided Mass Valuation. Field Geo based data is being collected electronically on mobile devices. This will be used for valuation of property and integrate with Smart Planning.
- Street Light Management Automation, installation of auto solar street lights
- Traffic Management Automation: The traffic control center design is ongoing, the implementation will improve traffic management.
- Implementation of Business Continuity
- Implementation of e-Health is ongoing. The Pilot cover four referral Hospitals within Kampala.

Opportunities

- Enhancement of Mobile Value Added Services
- Implementation of free Wi-Fi in Kampala: KCCA, National IT Authority are going to implement Wi-Fi hotspots for citizens.
- Government is implementing a One Stop Centre to promote competitiveness of Uganda's economy
- Building regional influence: The East & Central Africa Cities forum(24th-26th May 2016)
- KCCA is mindful of environment, we have planted 200,000 trees out of a target of 5 Million.

Challenges in the Application of Locally Relevant Technologies

Challenges

- ❖ Conflicting priorities, in some sectors for example implementing e-Learning successfully depends on access to equipment
- ❖ Delayed adoption of Technology by all citizens
- ❖ Insufficient technical capacity due to varying Smart City disciplines.
- ❖ Insufficient Research on Smart Cities in Africa
- ❖ Lack of funds to implement the Smart City as planned

THANK YOU!!!

www.kcca.go.ug



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