



Global  
Alliance

Africa

# Place-Based Innovation in Kenya: Regional Innovation Audit



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# About KTN and the Global Alliance Africa Programme

**KTN**, the UK's innovation network, exists to connect innovators with new partners and new opportunities beyond their existing thinking – accelerating ambitious ideas into real-world solutions.

**KTN's Global Alliance Africa** project is a six-year project co-funded by the UK's Foreign, Commonwealth and Development Office (FCDO) and Department for Business, Energy and Industrial Strategy (BEIS) through the Global Challenges Research Fund (GCRF), with the strategic partnership of Innovate UK.

Global Alliance Africa's long-term ambition is to enable the co-creation of more robust and effective innovation ecosystems in partner countries that promote job creation, inclusive growth and poverty reduction through knowledge transfer, skills building and opportunities to support businesses and innovations that can deliver scalable impact. As part of the Global Alliance Africa project, four project-level interventions will be piloted in 2021 in Kenya, Nigeria and South Africa, with one of these interventions focused on Place-Based Innovation.

## Objectives and Methodology

The programme has carried out comprehensive studies and advisory consultations to identify challenges faced by the innovation ecosystems and their impact across stakeholder groups. The insights gained have shaped five programme-level interventions, one of which is focused on Place-Based Innovation to strengthen capacity and resilience of local innovation ecosystems.

The next step for KTN Global Alliance Africa was to understand which area within Kenya should be prioritised to pilot the delivery of the Place-Based Innovation activities.

Eldoret, Kisumu and Mombasa were shortlisted as three potential cities for consideration. An integrated mix of desk research and qualitative study methodology was employed, using key informant interviews and focus group discussion, to gather data from ecosystem stakeholders to explore the following considerations for the three areas:

- 1 Identification of the challenges and impact on Eldoret, Kisumu and Mombasa's innovation ecosystem of place-based intervention,
- 2 How to utilise the information obtained from the research to strengthen Eldoret's, Kisumu's and/or Mombasa's innovation response, and
- 3 Understanding which area should be prioritised to pilot the delivery of a Local Innovation Network and Innovation Action Plan.

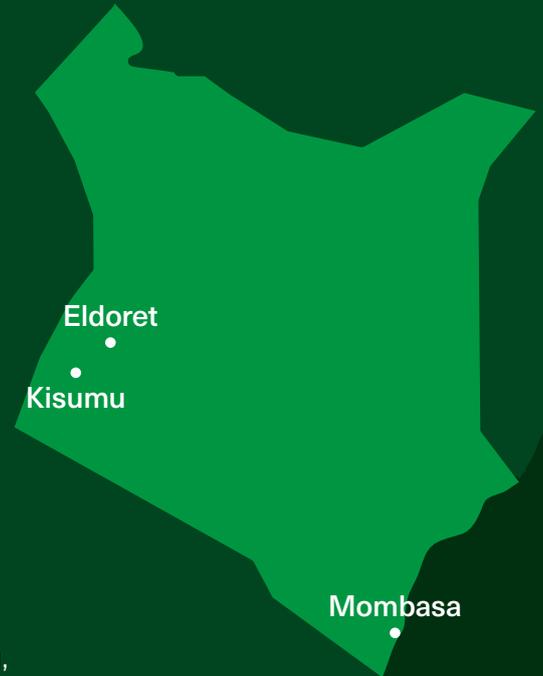


# Innovation System Context:

## Kisumu, Eldoret and Mombasa

Kenya’s government aims to provide an enabling environment for innovation supported through the establishment of innovation agencies, infrastructure development, collaborations between various stakeholders and investment in research and development.

However, there are several limitations such as insufficient funding, lack of innovation-friendly policies and lack of awareness that hamper the success and sustainability of many innovation solutions.



### Key Facts

All three cities are economically developing and rapidly growing, which connect the grassroots innovators to the global innovation communities due to their favourable geographic locations and defined regional economic blocks.

### Creators of local innovations: Kisumu, Eldoret and Mombasa

Characteristics	Kisumu	Eldoret	Mombasa
Age 	Mostly youth 18 -35 years	Predominantly youth 18 -35 years	Mostly youth 18 -35 years, sometimes as young as 12 years
Gender 	Mostly male	Mostly male	Mostly male
Income level 	Middle-income earners	Middle-income earners	Middle-income youth
Occupation 	<ul style="list-style-type: none"> <li>- Jukali artisans from informal sector</li> <li>- Agripreneurs</li> </ul>	<ul style="list-style-type: none"> <li>- University students</li> <li>- Entrepreneurs</li> </ul>	<ul style="list-style-type: none"> <li>- Mostly students from tertiary institutions and incubates in local innovation hubs</li> </ul>
Origin 	Mostly from Kisumu County with majority in urban setting	Mostly locals but probably have had exposure from urban areas	Mostly from Mombasa County, while some are also from a broader area with entrepreneurial ideas

# Industrial DNA

An important and distinctive part of any innovation ecosystem is its industrial DNA. As part of this Regional Innovation Audit we examined the local cultures, priority sectors, key skills and capabilities that exist and thrive in each area to help us understand how we can harness these qualities to boost innovation and create new meaningful opportunities for the ecosystem.



Shift in mind-set amongst the young people **towards innovation** instead of white-collar jobs



Widespread capacity building through blended learning through **experiential learning**, which has greatly improved the outcomes of the incubation programmes



Accelerated **women-focused** innovation programmes such as Women in Tech programme



Targeted **disability-focused** programmes for differently abled persons, such as assistive technologies, and support from emerging enablers, such as Global Disability Innovation Hub, UK Aid funded AT2030 Innovate Now programme



Increased adoption of innovation/innovative approaches in **agriculture, green energy, and sustainability**

## Infrastructure

There is increasing uptake in the internet by youth and of e-commerce platforms connecting traders to customers at rural levels, instead of going to the conventional open markets to buy goods. Mobile and digital payments have enhanced efficiency of money transfer and financial inclusion, while local apps for travelling such as taxi business apps have significantly help to reduce costs of transportation.

## Policies and Strategies

The Government aims to provide an enabling environment for innovators to thrive in, through infrastructural development, security mechanisms, etc. and has established state agencies that directly and indirectly enable an innovation environment.

State-commissioned funding providing support to local innovators include programmes such as UWEZO Fund, Youth Enterprise Development Fund (YEDF), MbeleNaBiz Business Plan Competition grant, and research grants through the National Research Fund (NRF). However, the Government tends to award more funds to the universities for conventional research than development partners.

Unfavourable start-up compliance policies and laws, as well as stringent due diligence requirements and bureaucratic processes exist, disadvantaging innovators and highlighting the fact that the existing innovation policy and institutional framework needs to be improved and streamlined.



# Innovation Ecosystem

## Kisumu, Eldoret and Mombasa

### Current Innovation and R&D Initiatives

There is increasing investment towards incubation and accelerator programmes within Mombasa, Eldoret and Kisumu owing to the emergence of more enablers in the local innovation ecosystem. However, due to lack of funds to sustain and commercialise some of these local innovations and products for mass production, the innovations are often inhibited.

Moreover, investors often like to invest in projects that have immediate returns. Some current innovation developments are (either specific to a city as indicated in the bullet point, or across the country):

- ✓ **County hubs such as the STEM hub in Mombasa**
- ✓ **Setting up of Incubation centres for SMEs**
- ✓ **Investment interests towards local manufacturing, circular and sharing economy**
- ✓ **Investment towards green energy**
- ✓ **Investment towards smart agriculture and fish cage farming in Kisumu**
- ✓ **Innovations around agriculture and mostly towards value addition in Eldoret**
- ✓ **Increasing investment in health sector**

*“There is a major gap in the policy and legal environment. Policies are formulated but it takes a lot of time for the same policies to be implemented. For example, we took part in creation of the Start-up Bill by Hon. Johnson Sakaja, however it is yet to be adopted.”*

Enabler Eldoret

*“Many industrially scalable innovations cannot be commercialised because of lack of funds and awareness on the innovations”*

Stakeholder, Eldoret



# Ecosystem Innovation Stakeholders

Stakeholder	Role	Involvement
Local community	Promote innovations	<ul style="list-style-type: none"> <li>- Provides indigenous knowledge; shares</li> </ul>
Government and state actors	<p>Provide enabling environment and promoting locally created innovations</p> <p>Established state agencies to directly and indirectly enable innovation environment</p>	<ul style="list-style-type: none"> <li>- Infrastructural development, security mechanisms, etc.</li> <li>- State-commissioned funding support</li> </ul>
Enterprise Support Organisations, MSME enablers, Innovation hubs	Support and promote local innovations	<ul style="list-style-type: none"> <li>- Incubation, acceleration, business development services and awareness creation</li> </ul>
Academic institutions	Innovation-friendly research and innovation policy framework	<ul style="list-style-type: none"> <li>- Provides Financial support and technical training and hosts Technical and Vocational Education and Training Authority (TVETA) fairs</li> <li>- Raises awareness on intellectual property issues</li> <li>- Provides raw materials for building prototypes</li> <li>- Patents innovation ideas for students</li> </ul>
Financial Intermediaries	Enables funding	<ul style="list-style-type: none"> <li>- Credit facilities and seed funding</li> <li>- Financial literacy skills</li> </ul>
NGOs	Supports local innovation ecosystems	<ul style="list-style-type: none"> <li>- Entrepreneurship support training</li> <li>- Funding and start-up capital</li> <li>- Matchmaking</li> <li>- Mentorship and coaching on business development, up-scaling</li> </ul>
Corporates	Supports and where possible facilitates local innovations	<ul style="list-style-type: none"> <li>- IoT Platforms</li> <li>- Legal, financial, etc. advise</li> <li>- Computers, internet connectivity, etc.</li> </ul>
Influential persons	Promotes and drives awareness	<ul style="list-style-type: none"> <li>- Financial support (albeit limited)</li> </ul>

# Ecosystem Strengths, Weakness, Opportunities and Threats (SWOT)

## Existing STRENGTHS and current OPPORTUNITIES that promote grassroots innovation



- Government's promotion of innovation and infrastructural investment.
- Existence of robust research and innovation policies in academic institutions, especially the technical training colleges.
- Presence of innovation enablers and forums within the study regions.
- Increased awareness and adoption of technology and innovation.
- Favourable geographical location and defined regional economic blocs.
- Market access support programmes and services.
- Inherent resilience of local innovators and entrepreneurs despite difficult circumstances within the innovation ecosystem.

## WEAKNESSES and THREATS that significantly inhibit grassroots innovation across the three study areas



- Innovators and the innovation hubs lack access to finance.
- Low access to market and slow penetration of products.
- Lack of information, awareness and knowledge about the existing local innovations.
- Low acceptance and uptake of local innovations by the local people.
- Low locally driven investment to facilitate local innovation.
- Lack of raw materials and production resources/tools.
- Weak business support systems along the entire innovation value chain.
- Infrastructural limitations at grassroots.
- Mismatch of skillset in the market.
- Lack of innovation-friendly policies to drive innovations.
- Lack of effectively facilitated collaboration and partnership amongst key ecosystem factors.
- Sociocultural behaviour and perceptions towards involvement in innovations.

# Recommended Interventions by Local Technology, Science & Innovation Community

In order to enhance local innovation, the following recommended interventions will help design activities effectively, sustainably and innovatively, strengthening the capacity and resilience of the local ecosystems.

- Increasing financial access by strengthening and sustaining local and international investment flow in innovation.
- Streamlining policies and institutional framework on local innovations.
- Enhancing commercialisation of existing and new local innovations to increase market access of existing innovations.
- Providing technical support and increasing access to innovation spaces at the grassroots.
- Fostering and strengthening trust-enabling collaborations, partnerships and networking activities within the existing ecosystem actors.



## Recommended Key Entry Points for KTN Global Alliance Africa Place-Based Innovation

Major sector priorities for local innovation that emerged across the study areas in order of the local needs by city were:

Ranking	Kisumu	Eldoret	Mombasa
1	Agri-food	Agri-food	Blue economy
2	Local manufacturing	e-Commerce	Agri-food
3	Clean/Green energy	Education	Health care
4	Technology	Technology	Clean energy
5	Circular economy	Clean energy	Technology
6	Blue economy	Circular economy	
7	e-Commerce	Health care	
8	Health care	Transport	

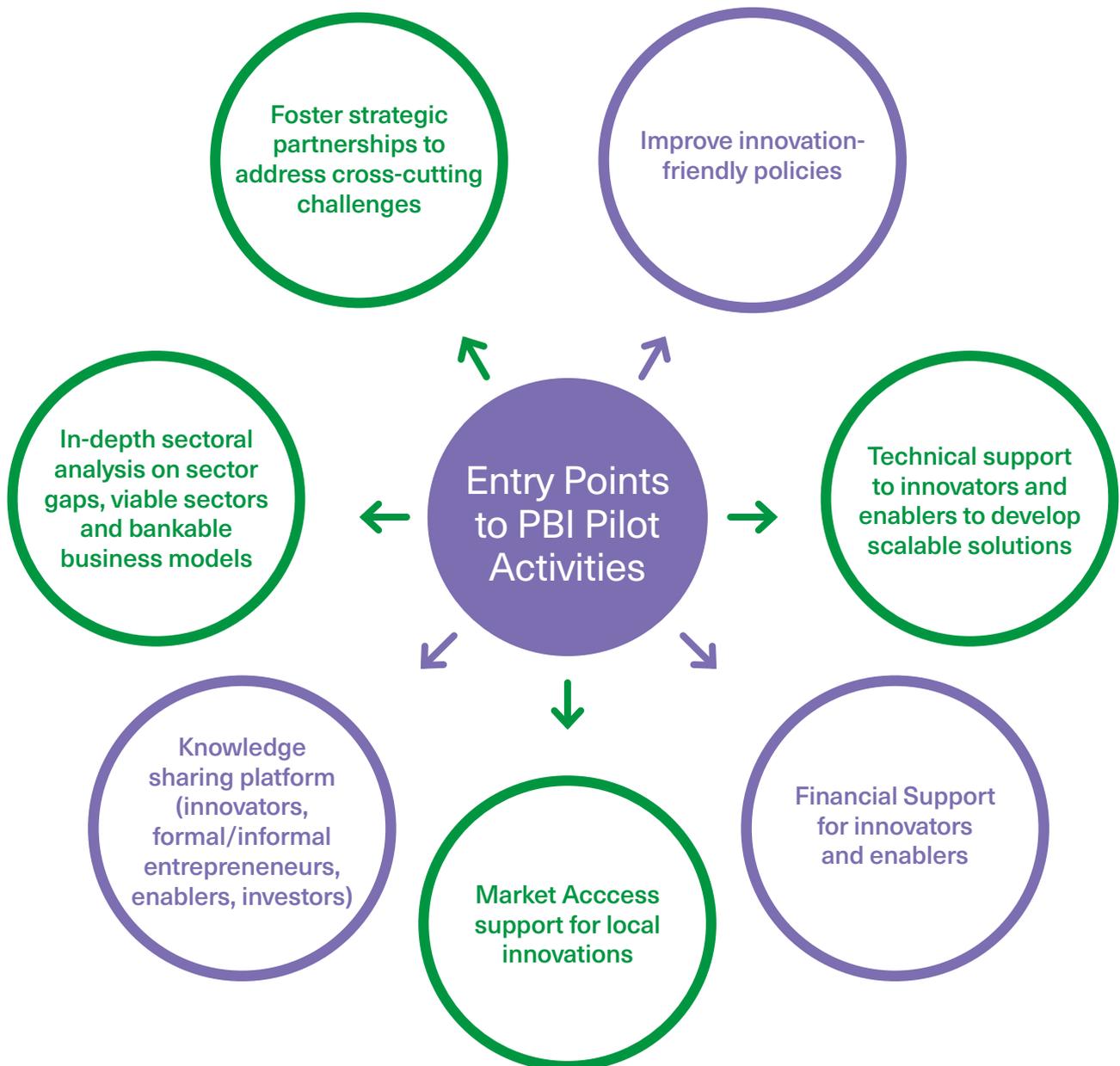
## The research findings identified two piloting options for the KTN Global Alliance Africa programme:

1. **Concurrently** pilot the project in the three cities in order to compare the successes/ challenges of the intervention activities or,
2. **Sequentially** pilot PBI activities in *Eldoret, Kisumu and Mombasa* in that order.

Any of the three regions are potentially feasible for the first pilot intervention activities because they are all rapidly growing innovation cities in Kenya outside of the capital city of Nairobi (which is the hub for innovations in Kenya) and the fact that they have related challenges, strengths, and strategic priorities.

On this premise, the KTN Global Alliance Africa programme can consider piloting the Place-Based Innovation activities in Kenya concurrently in all the three towns as the project teams and partners monitor the intervention activities then upscale the most effective intervention model in terms of reach and coverage of activities.

Based on the analysis and findings, the KTN Global Alliance Africa programme will initially pilot the Place-Based Innovation activities in Eldoret, with scope to expand to Kisumu and Mombasa as the programme progresses.



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