CONCEPT NOTE
JASIRI2030

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ii2030
#Africa4Future Edition

CitiZen, Citycon, Sensorit

Iphiko UAV

The challenge

Increased urbanization means that an increasing proportion of the world's population lives in cities. Urban living provides benefits to residents such as access to jobs and higher income, healthcare and education. It also offers businesses lower input costs, more options for collaboration and innovation. Rapid urbanization also poses great callenges. City governments and policy-makers must plan for and manage the impacts of urbanization on poverty, inequality, employment, services, transport, climate change and politics.

An increasing number of African companies are developing decision-making tools based on remote sensing and AI technologies that can be used for critical and resilient infrastructure development. These tools and technologies respond to local realities and needs. They create opportunities to collect and analyze data, plan meticously, leverage resources and accelerate implementation, design better informed policies and respond effectively to the challenges of urbanization.

However, most African decision makers from public or private sector are not using these tools and technologies to inform their decision making around sustainability and inclusive innovation. Although technologies are readily available, there are key systemic issues that prevent the application of remote sensing and AI technologies that prevent the development of remote sensing and AI technologies use cases.

The solution

In an interdisciplinary co-creation process[1] a group of over 30 organizations from city planning departments, private sector and academia explored how the applications of readily available data source, remote sensing technology and artificial intelligence (AI) could be used for societal benefit in South Africa. We aimed to develop a solution to use space technology and AI more intentionally to protect lives and improve the health and wellbeing of millions of people across Africa. In an intensive co-creation process, the group developed Jasiri2030.

Jasiri2030 is an urban precinct initiative in Johannesburg and Cape Town that aims to decrease the negative impact of urbanization through the democratisation and decentralization of infrastructure

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[1] Endeva's Inclusive Innovation (ii2030) process. ii2030 has proved to be a powerful way to create partnerships that lead to systemic change. Endeva's ii2030 process creates a compelling vision of the future, brings innovators from public and private sector, startups and communities, to co-create solutions that can positvely disrupt a system and enable it to bring us closer to the future we desire as laid out in the Sustainable Development Goals (SDGs). The interdisciplinary approach, gives us access to a breadth of expertise and range of perspectives and ensures a holistic view of a deeply interconnected future with multiple constraints.

(facilities) management in energy, water, waste and transport, based on data provided by citizens. This sustainable precinct initiative will:

- create local sustainable solutions using the technologies
- facilitate demonstration sites
- promote the business case for sustainable precincts
- build industry and city capacity through the dissemination of knowledge and information on how sustainable precinct solutions can be applied through innovative business models
- promote a structured and well documented process of an interdisciplinary (multistakeholder) approach in the built environment and the outcomes.

Jasiri2030 helps build an integrated ecosystem and identify cost-efficient, African-driven solutions while improving local capacity. It is a process aiming to provide innovative and context-specific solutions while fostering peer exchange process and engage with the community.

With this process Jasiri2030 wil:

→ Go Beyond What Exists Today
Facilitate an energy, water, waste and trasport precinct initiative in South Africa to promote and accelerate the application of remote sensing and AI technologies in an urban setting, through an interdisciplinary (multistakeholder) led approach. The co-created solutions are tested at a precint level.

→Engage the Ecosystem
Leverage a comprehensive engagement process of key actors in the ecosystem, ranging from local communities to government, academia, private sector and solution providers.

→Built to last
Foster capacity building efforts for local government and communities for Jasisri2030's impact to last beyond the scope of this process.

EXPECTED IMPACT

1. Current situational analysis of relevant use cases using remote sensing and AI technologies in urban settings.
2. Comprehensive, real time data collection on utilities required and consumption per identified precint and joint compile concept note and responsibility.
3. Creation of new knowledge, innovation and localized use cases for remote sensing and AI technologies to achieve the SDGs more efficiently, effectively and at scale.
4. Efficient allocation and leveraging of resources and improved services delivery by African decision makers through interdisciplinary collaboration.

How it will work

Jasiri2030 intentionally brings urban communities and infrastructure solution providers together, to create citizen led innovation and to encourage the development of new and future-fit solutions that are adapted to a hyper local African context.

The precinct initiative is envisioned to take place in Alexandra, Johannesburg and Houtbay in Cape Town as both areas have formal, established areas and informal settlements. It will consist of an interdisciplinary (multistakeholder) steering committee (private, public sector, academia, local community local technology solution providers) to develop solutions for data collection, analysis and effective service delivery that bring maximum benefit to society.

1: INITIAL SET UP

Engage location specific steering committee and conduct necessary assessments

2: SOLUTION DESIGN

Identify and design technology solutions for local context. Test prototype

3: SOLUTION IMPLEMENTATION

Conduct iterative testing to select most suited solutions. Implement precint solutions

4: DOCUMENTATION & DISSEMINATION

Develop and share process notes and provide recommendation for procurement processes

PROJECT LOCATIONS

Jasiri2030 will be implemented in two municipalties; city of Johannesburg and Cape Town. Conducting activities in the two selected locations will foster potential for peer learning between cities and establish a community of practice within the country.

Eligibility criteria for location selection are the following:

- Municipal wide commitment to citizen innovation and service delivery
- Commitment to establish a PPP for implementation
- Introduction to local technology startup ecosystem, built environment, precinct developers, university departments and relevant municipality departments
- Provision of dedicated funding, facilities – living lab, human resources or support for funding raising application

CAPE TOWN

JOHANNESBURG

WORKING IN PARTNERSHIP		
TEAM	**ROLES**	**RESPONSIBILITIES**
Project management support	Oversee project outline for final concept note application	• Organise and facilitate partner engagement • Contribute and facilitate final concept note application • Documentation of process
Project tech support	Risk assessment and technical analysis	• Conduct risk assessment • Assess necessary technical requirements for tech solution • Contribute to designing of the technical solutions • Review and analyse testing results; provide recommendations
Regulations	Provide insight and guidance to regulatory environment	• Ensure that regulations are in place • Oversee the security risk assessment • review the suitabilityof proposed technical solutions
Operations . CITIZEN. CITYCON.	Ground the tech solutions created	• Provide operation and testing site s for second testing phase • Commit to providing resources for finalization research and concept note and
Tech Providers SENSORIT. IPHIKO UAV.	Respond to challenges in partnership with local actors	• Co-develop PoC for concept note • Adapt technology as required • Provide technical input
Community engagement	Set up process and protocols to engage the ecosystem	• Overseeing the creation of the Steering Committee • Develop mechanisms for community engagement through stakeholders