

## **Census in the Digital Age**

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### Who are we?

- National government department
- Accountable to the minister in the Presidency
- Mandated to collect information to produce official statistics
- Activities regulated by the Statistics Act 1999 (Act No 6 of 1999) as amended (Act No. 29 of 2024)
   which provides for independence, oversight by a council, and confidentiality of respondents
- Stats SA publishes social and economic statistics



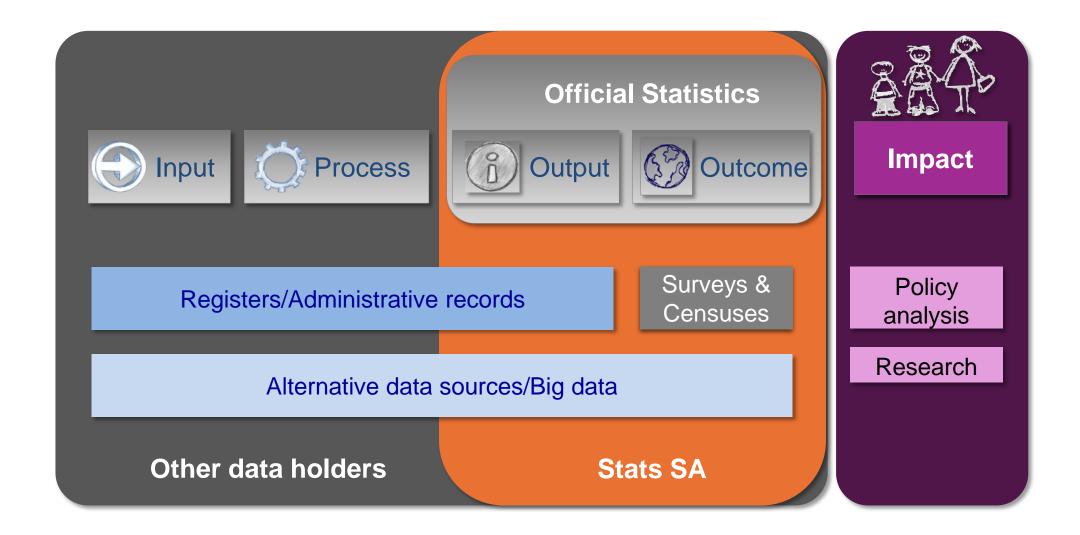


IMPROVING LIVES THROUGH DATA ECOSYSTEMS





## Statistical production system

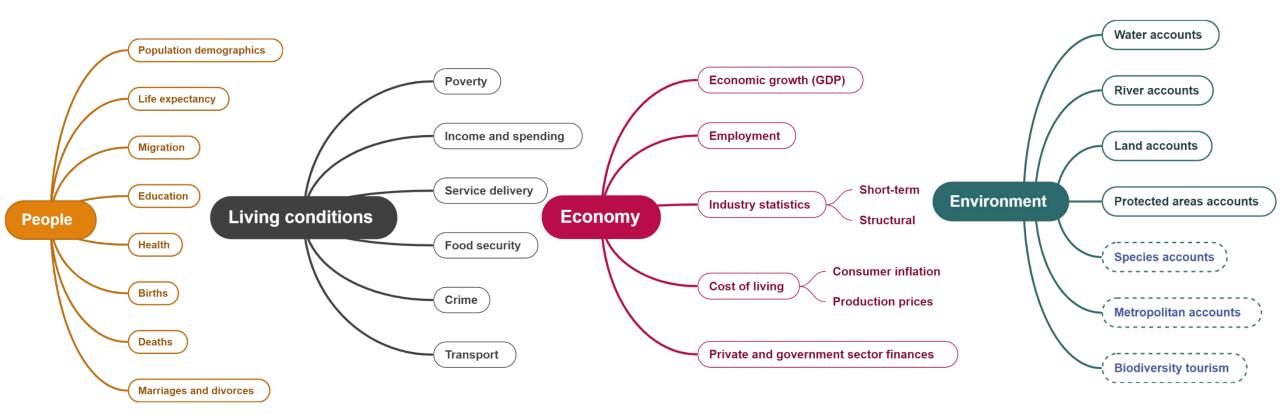








## Our products









## Road to a Digital Census

**1996** Traditional face-to-face census visiting households with paper questionnaire

stats sa







## Monitor your fieldwork.... + Modes Concurrently









#### **CENSUS 2022 ENUMERATION DASHBOARD: CAWI / CATI**

% Completed DU & SDI

237,197 Total DU & SDI

65.68%

155,797 Completed DU & SDI

31,886 In-Progress DU & SDI

49,514
Untouched DU & SDI

172,897

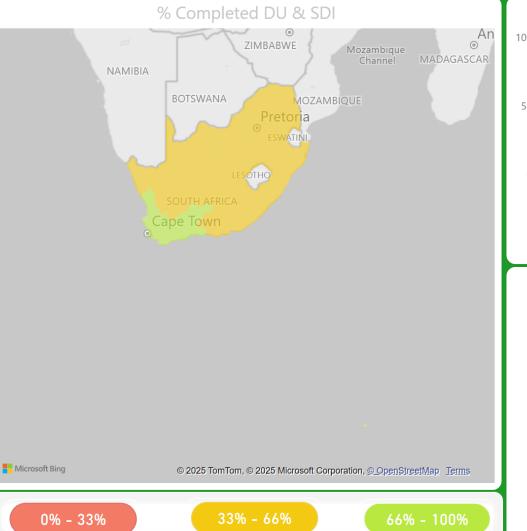
**Complete Questionnaires** 

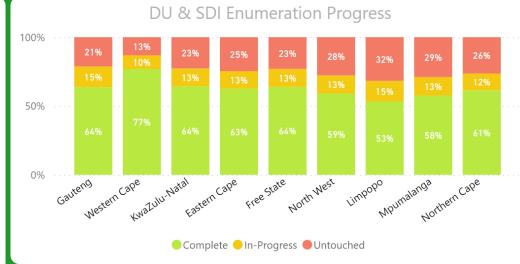
Feature Category

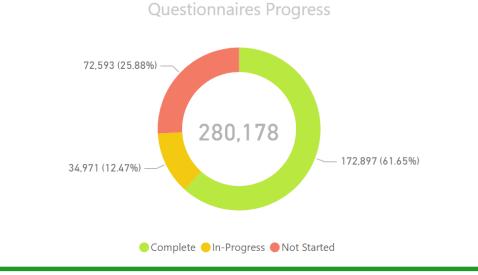
All

Collection Mode

All



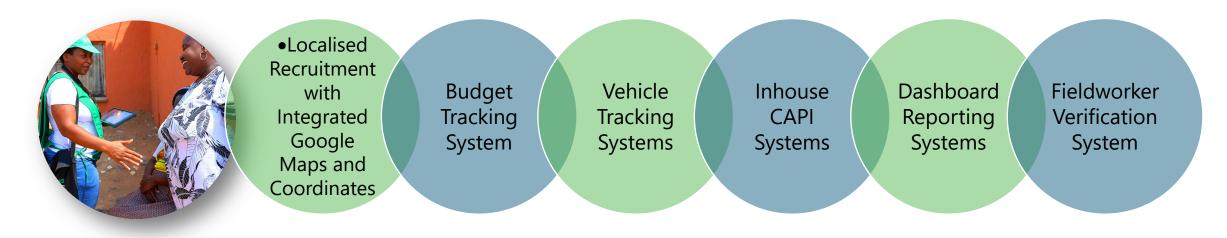




### **KEY CENSUS 2022 INNOVATIONS**

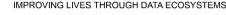
This was South Africa's first digital census with real time, computer aided data collection using hand held devices













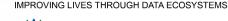


South Africa's Population on 2 February 2022

62 027 503











### Towards 2031

**1996** Traditional face-to-face census visiting households with paper questionnaire



**2031 Digital Census** 









Predictive Analytics and Early Warning Systems



**Automated Anomaly Detection** 



Natural Language Processing (NLP) for Queries and Insights



**Intelligent Resource Optimization** 



Use of administrative records



Deployment of Drones for Geo-Frame Updating



QR Codes for fieldworker verification











## Key aspects of the 2031 Digital Census



#### **Online Platforms:**

Respondents can complete questionnaires via websites or mobile apps, allowing for self-enumeration and reducing the need for in-person interviews.



#### **Mobile Devices:**

Fieldworkers willl use tablets to collect data in the field, streamlining the process and enabling real-time data entry and transfer.



#### **Data Analytics:**

Advanced tools will be used to analyze census data, providing insights into demographics, social conditions, and economic trends.



#### **Reduced Costs:**

Digital methods will lower the costs vs traditonal census



#### **Improved Accuracy:**

Digital tools can minimize errors associated with manual data entry and improve the overall quality of the collected data.



#### **Real-time Data:**

Data can be collected and processed in real-time, enabling quicker analysis and reporting.



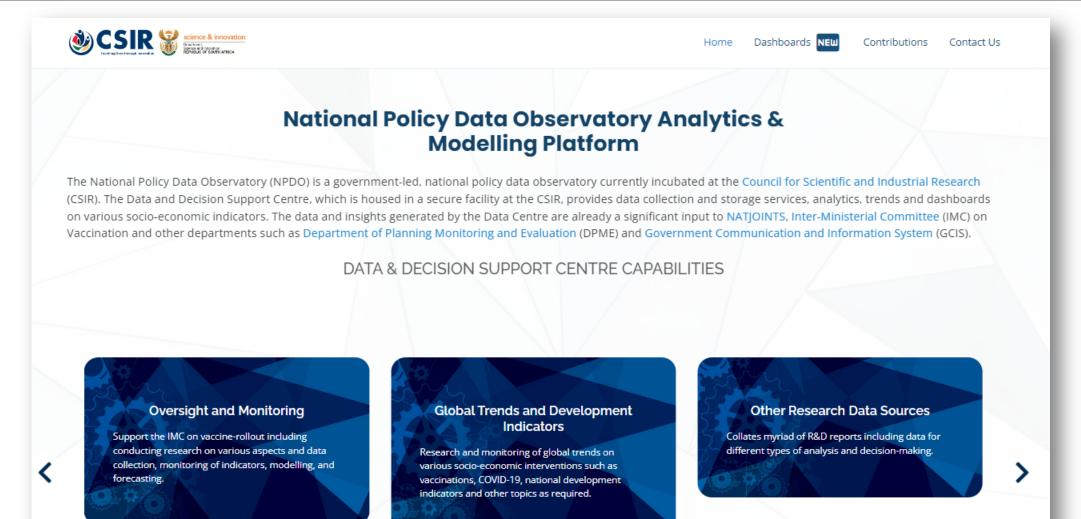
## Big Data and Data science:

Using big data sources like MPD (Mobile Phone Data) as a means to count people will be potentially a game changer in the future.



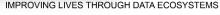


### Using Big/Admin data to improve our planning & preparatory activities for the 2031 digital census

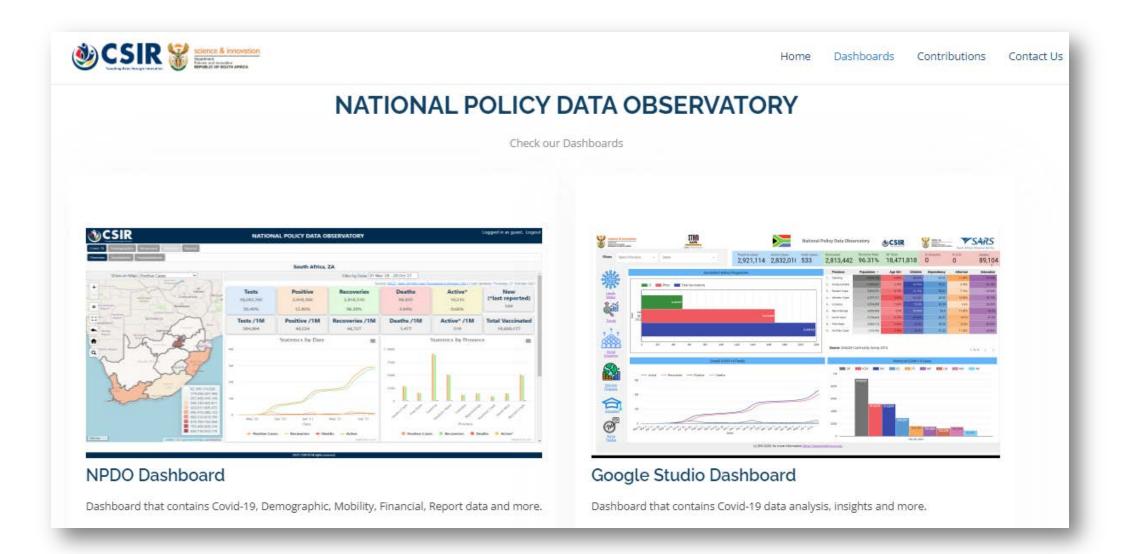








### **Hosted NPDO Artefacts**



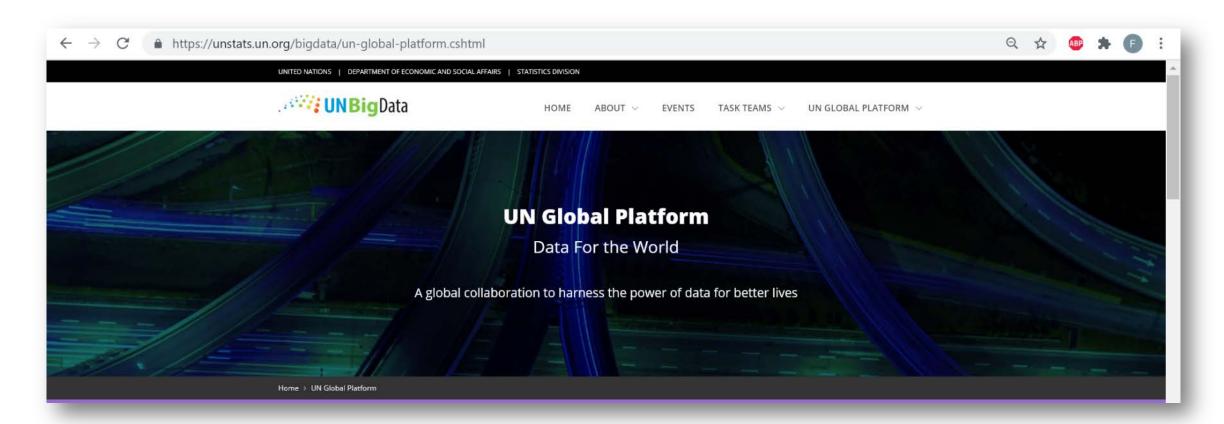






### The Global Platform lives in the Cloud...

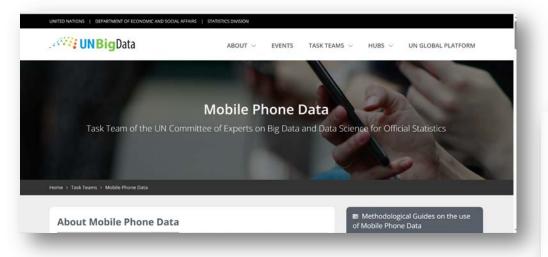








### Task Team of the UN Committee of Experts on Big Data and Data Science for Official Statistics





### **Deliverables**

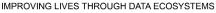
The Task Team aims to achieve the following goals in 2025:

- 1. Review and elaborate the methodological guides on migration, tourism, and transport.
- 2. Develop guides on new areas included under research and innovation.
- 3. Continue the development of synthetic data for various applications of MPD for official statistics, such as migration patterns, population mobility, tourism, transport, information society.
- 4. Finalize the training materials for the MPD Project Manager.
- 5. Develop a **pseudocode** guide for using MPD in official statistics outlining clear, step-by-step procedures across the six key areas defined in the published MPD Guides.
- 6. **Delivery of capacity building in countries**. Key topics will include technical methodologies ensuring that countries can integrate MPD into their statistical systems. This can be done in the context of the GDF-MPD Cohort 1 countries.
- Build a comprehensive repository of country use cases of use of MPD for official statistics or other applications in policymaking.

https://unstats.un.org/bigdata/task-teams/mobile-phone/







## Census 2022

# Thank you!











