



Integrating Citizen Science into the Official SDG Monitoring Mechanisms and a Proposal to Use Unofficial Statistics for SDG Reporting (to Deal with Crises)

Monday, October 19, 2020

12:30 - 1:45 PM UTC / 8:30 - 9:45 AM EST



Featured Speakers:

- **Dilek Fraisl**, Research Scholar, International Institute for Applied Systems Analysis
- **Jillian Campbell**, Head of Monitoring, Review, and Reporting, UN Convention on Biological Diversity
- **Camden Howitt**, Co-Founder and Programmes Director, Sustainable Coastlines
- **Omar Seidu**, Head of Demographic Statistics and SDG Coordinator, Ghana Statistical Service
- **Dr. Steve MacFeely**, Head of Statistics and Information, UNCTAD
- **Jessica Espey**, Senior Advisor, UN SDSN and Director, SDSN TReNDS (moderator)

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Sustainability Science
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ORIGINAL ARTICLE



Mapping citizen science contributions to the UN sustainable development goals

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Abstract

The UN Sustainable Development Goals (SDGs) are a vision for achieving a sustainable future. Reliable, timely, comprehensive, and consistent data are critical for measuring progress towards, and ultimately achieving, the SDGs. Data from citizen science represent one new source of data that could be used for SDG reporting and monitoring. However, information is still lacking regarding the current and potential contributions of citizen science to the SDG indicator framework. Through a systematic review of the metadata and work plans of the 244 SDG indicators, as well as the identification of past and ongoing citizen science initiatives that could directly or indirectly provide data for these indicators, this paper presents an overview of where citizen science is already contributing and could contribute data to the SDG indicator framework. The results demonstrate that citizen science is “already contributing” to the monitoring of 5 SDG indicators, and that citizen science “could contribute” to 76 indicators, which, together, equates to around 33%. Our analysis also shows that the greatest inputs from citizen science to the SDG framework relate to SDG 15 Life on Land, SDG 11 Sustainable Cities and Communities, SDG 3 Good Health and Wellbeing, and SDG 6 Clean Water and Sanitation. Realizing the full potential of citizen science requires demonstrating its value in the global data ecosystem, building partnerships around citizen science data to accelerate SDG progress, and leveraging investments to enhance its use and impact.

Keywords Sustainable Development Goals (SDGs) · Citizen science · SDG indicators · Tier classification for SDG indicators · Crowdsourcing · Community-based monitoring

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SDG CoP: UN Sustainable Development Goals and Citizen Observatories

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The WeObserve SDGs and Citizen Science Community of Practice (SDGs CoP) is an open platform for citizen science/citizen observatory initiatives.

Our aim is to connect citizen science/citizen observatory initiatives with National Science Offices (NSOs) and government offices, to facilitate the exchange of information and knowledge for guiding policy formulation and implementation. New innovative approaches to data collection, such as citizen science/citizen observatories, and the broader data and stats communities to share and exchange knowledge, ideas and resources on how to demonstrate the value of citizen science data and impact for SDG achievement.

SDGs are a roadmap to achieve a healthy, prosperous and fair future for all. Achieving the SDGs requires informed decisions that are based on accurate, timely and comprehensive data. Even though data availability has improved over the last decade, there are still major gaps in information and knowledge for guiding policy formulation and implementation. New innovative approaches to data collection, such as citizen science/citizen observatories, which is very broadly defined as public participation in scientific research, can contribute to SDG monitoring. In addition, citizen science could also help mobilize citizen action and

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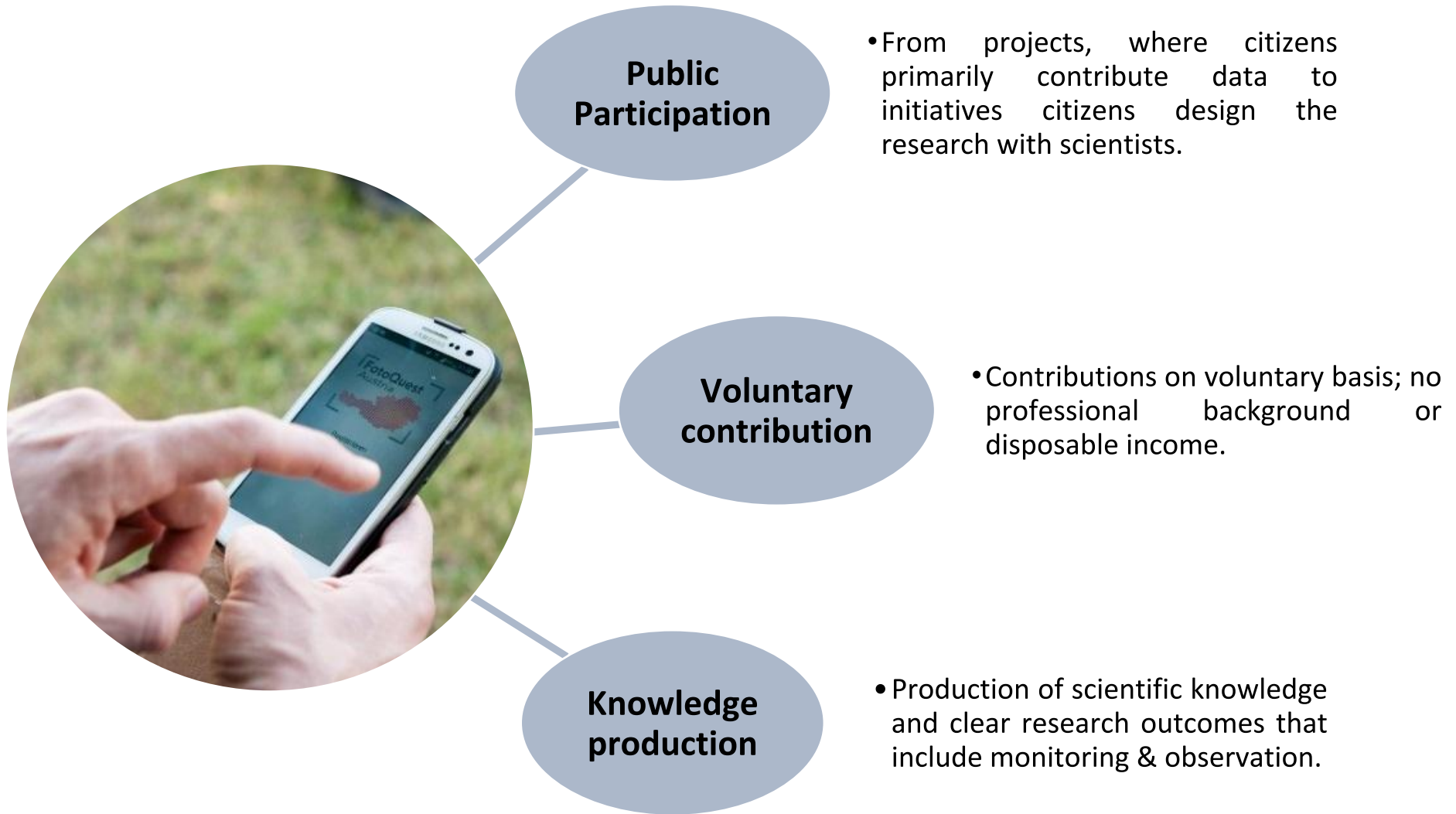
for the WeObserve
Communities of Practice

Glossary

Inception report

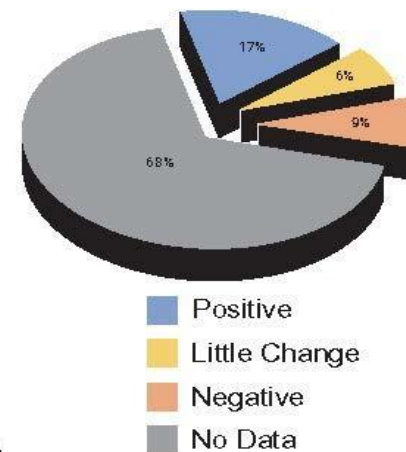
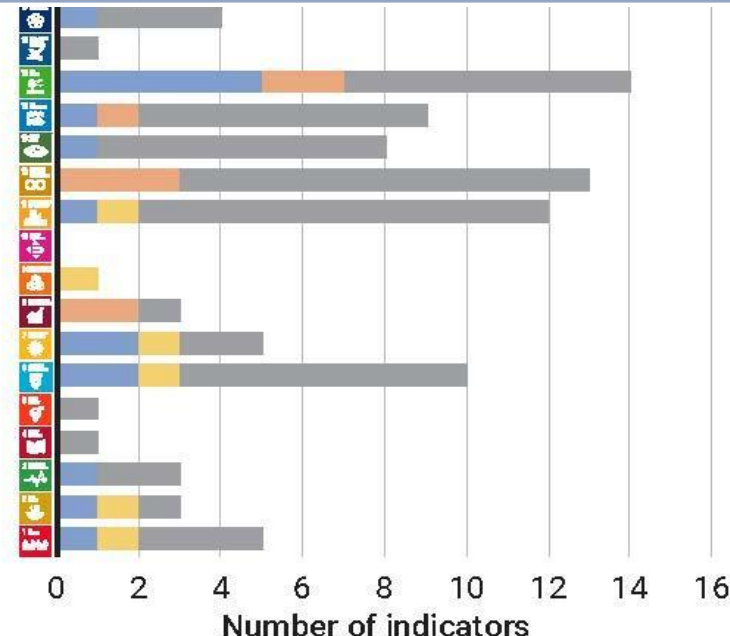
Citizen science and the United Nations Sustainable Development Goals, Nature Sustainability

Citizen Science



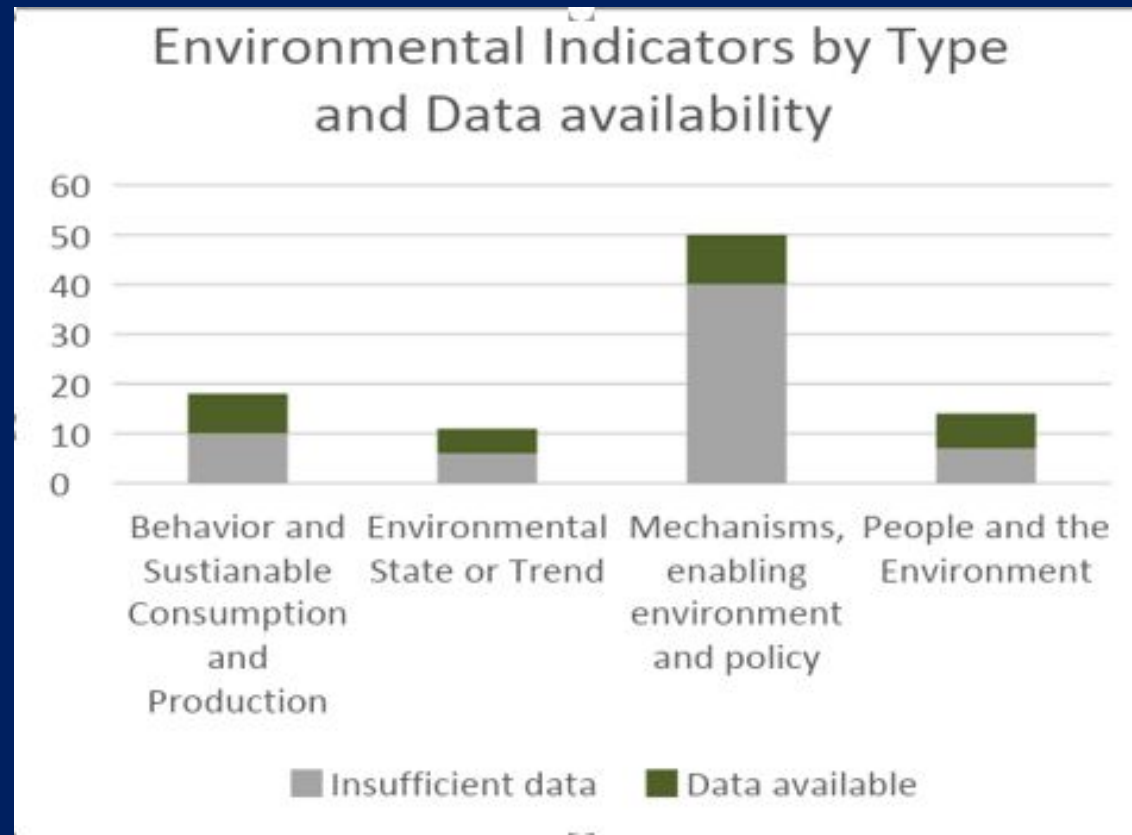
Data underpin good decisions

- 68% of environment-related SDG indicators do not have enough data to assess global progress.
- Investment in data and statistics is essential.
- There is even less data availability that is disaggregated by vulnerable population or geospatially.



Measuring policy more than the environment

- Almost half of the SDG indicators related to the environment measure enabling mechanisms as opposed to environmental conditions or factors.
- Success in terms of the enabling mechanisms identified may not result in protecting our planet.





sustainable
coastlines



**Litter
Intelligence.**



Ministry for the
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Conservation
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Microsoft



Data.

Citizen Science

programme collecting long-term scientifically rigorous litter data.



Insights.

Powerful **interactive technology & visuals** for trends, comparisons and insights. Raw data for in-depth analysis.



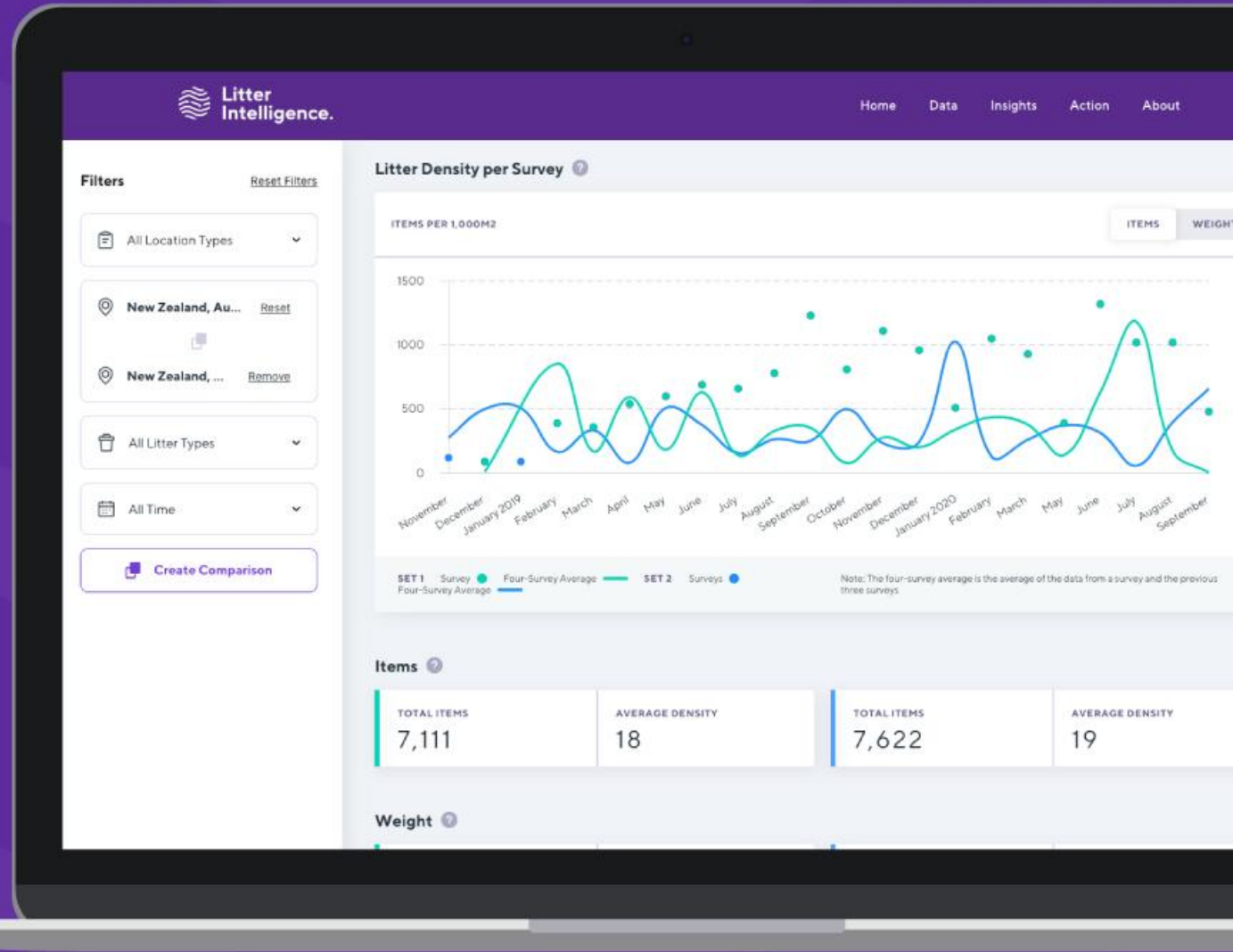
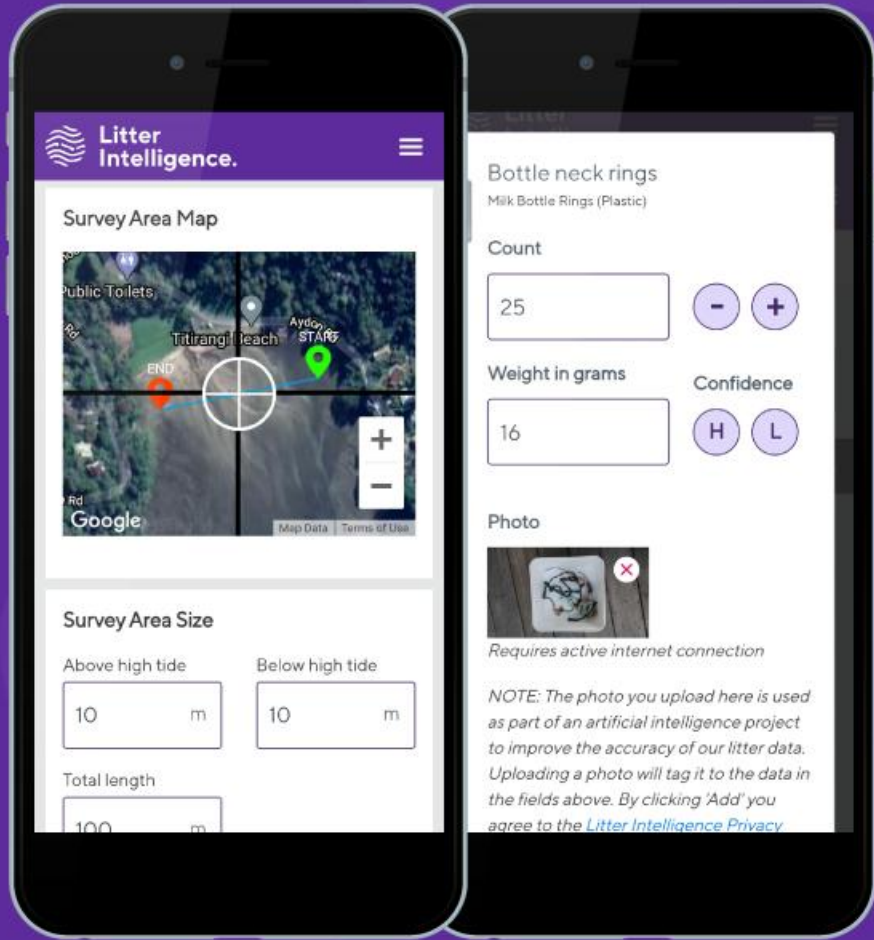
Action.

Holistic, enquiry-based **schools education** programme and searchable library of case studies / actions.



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Data Roadmap Forum

FILLING DATA GAPS



Strengthening
Censuses and Surveys



Building effective
administrative data
system



Exploring new sources
and types of data

ENCOURAGING DATA USE



Make data more open
for reuse



Better communication
and visibility of data

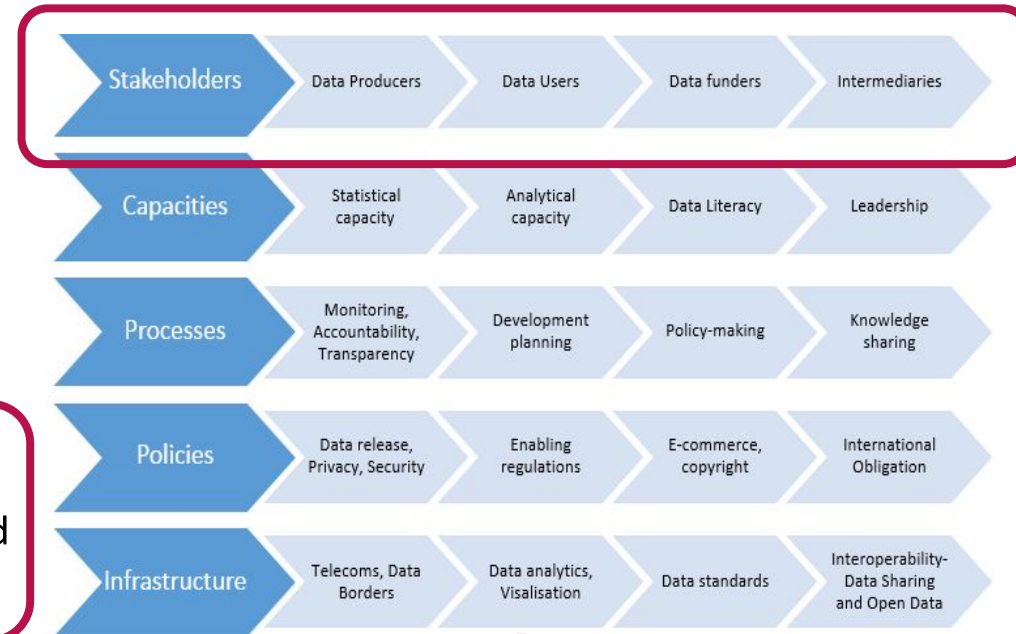


Ensure data connects
to decision-making and
meets user needs



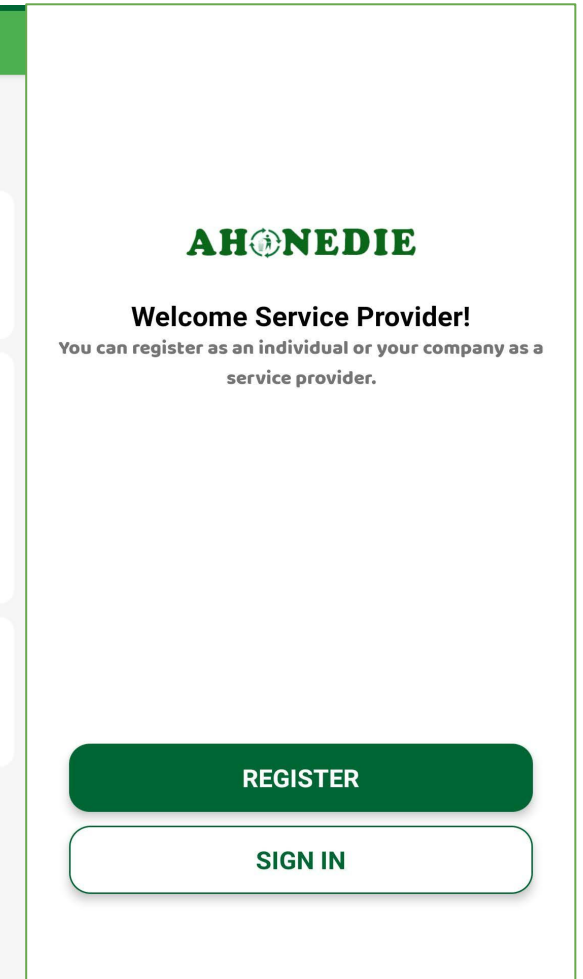
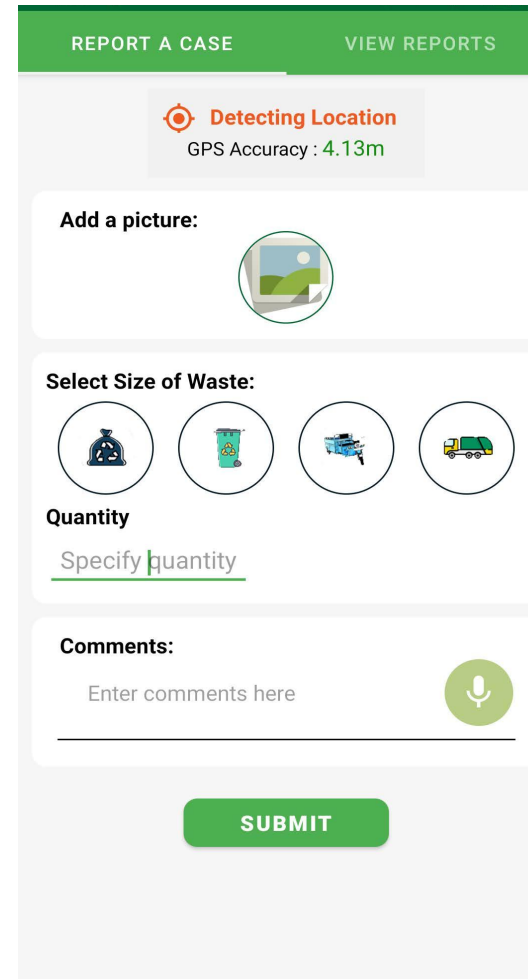
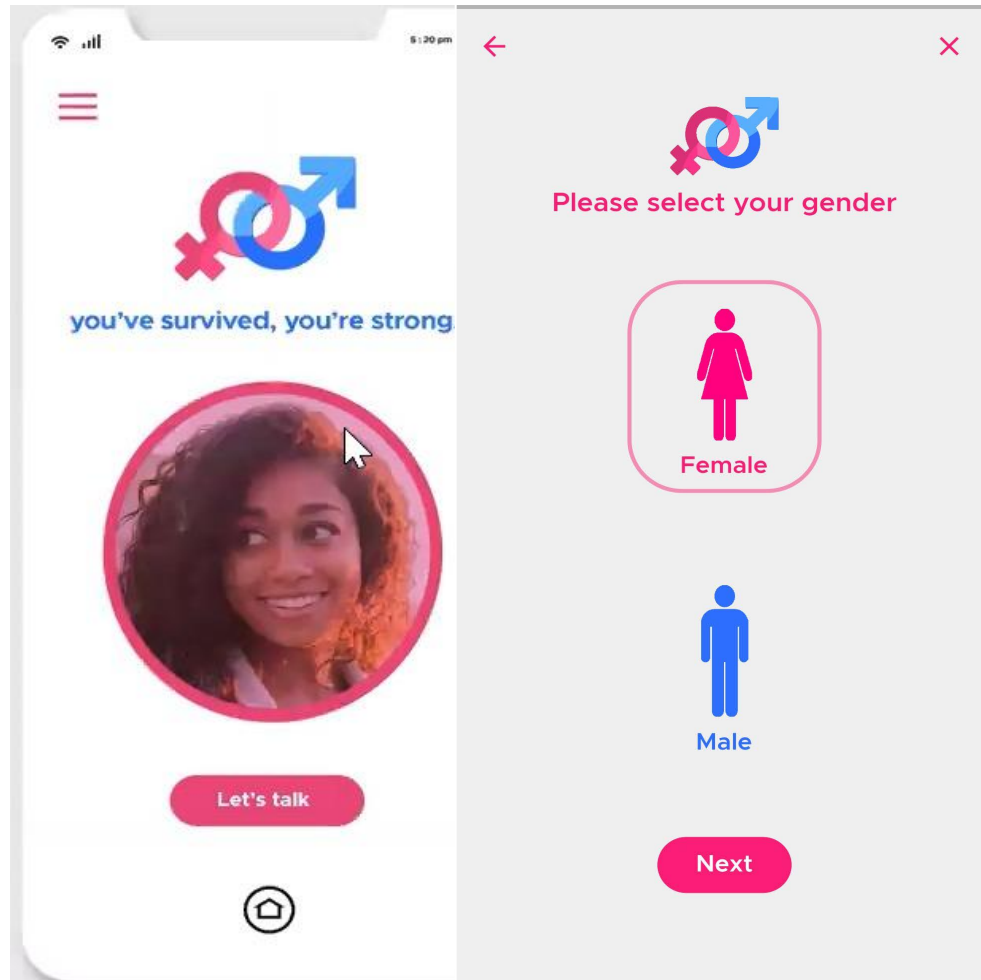
Ensure that data is
interoperable and
harmonized

STRENGTHEN ENTIRE DATA ECOSYSTEM





Involving Citizens in SDG monitoring





Advice to NSOs

- Creating a permissive environment for experimental statistics
 - **Legal infrastructure** through Ghana's Statistical Service Act 2019
 - Build confidence through a data **quality assurance** framework
 - Widely communicate outputs and outcomes of experimental pilot projects - i.e. **covid mobility analysis**
- Encourage ownership of citizen-driven initiatives throughout the data chain
 - Create **multi-stakeholder** governance structures - NTT & DTT
 - Involved citizens and developers in the design of solutions - **Design Thinking**

‘...data demands for the 2030 Agenda require urgent new solutions that leverage the power of new data sources and technologies through partnerships between national statistical authorities and the private sector, civil society, and the academia and other research institutions’.

The Dubai Declaration
2018 UN World Data Forum

Number of SDG indicators by Tier

Tier Classification	December 2016		December 2017		December 2018		December 2019		July 2020	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
1	81	35	93	40	101	44	116	50	123	53
2	57	25	66	28	84	36	92	40	106	46
3	88	38	68	29	41	18	20	9	-	-
Multiple	4	2	5	2	6	3	4	2	2	1
Total	230	100	232	100	232	100	232	100	231	100

Source: Derived from IAEG-SDG Tier Classification (July 2020)

Using unofficial data and statistics to compile SDG indicators.

