

# Sustainable Socio-Technical Systems

Activating young citizens in the 4<sup>th</sup> Industrial Revolution

19 March 2018



UNIVERSITY  
OF  
JOHANNESBURG



A photograph of a library interior. In the foreground, a student is seated at a long wooden table, leaning their head on their hand and looking down at an open book. The table is cluttered with papers and books. In the background, other students are visible, some standing and some sitting. A large, multi-paned window with a dark metal frame is the central feature, letting in bright, warm light. The overall atmosphere is quiet and studious.

## Vision

The University of the Johannesburg is an international university of choice, anchored in Africa, dynamically shaping the future. Inspiring its community to transform and serve humanity through innovation and the collaborative pursuit of knowledge



The background of the slide is a blurred photograph showing several people's hands and arms. Some are holding smartphones, and others are holding papers or documents. The scene appears to be a collaborative workspace or a field research setting. The overall tone is professional and focused on technology and data collection.

# ResearchGO

We are team of UJ researchers, academics and commercial partners

We are behavioural economists, data scientists, engineers, social scientist and ICT specialists that specialize in developing smart tools to support

## data collection

in difficult to reach areas, at scale

We work with a youth employment accelerator to provide employment opportunities to local young people

ResearchGO developed fieldwork and data management smart tools that

- 📍 Allows users to manage large groups of fieldworkers
- 📍 Geolocate survey data offline
- 📍 Schedule remote interview locations
- 📍 Manage the logistics and quality for survey data collection over large geographical areas

A team of researchers at UJ developed a methodology which allows us to activate unemployed youth from local communities to participate in the gig-economy using smart tools to allocate work, monitor quality, and execute micro-data collection at scale in urban and rural areas

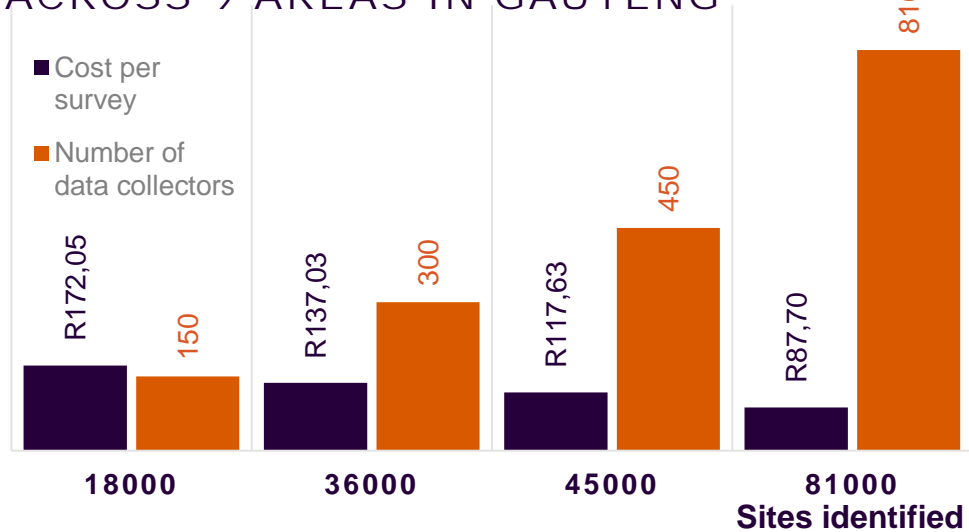
The ResearchGO platform combines several important components into one coherent solution, including:

- 📍 Logistics planning and optimisation
- 📍 Data collector deployment
- 📍 Remote cohort management
- 📍 Live data storage and sharing
- 📍 Execution monitoring
- 📍 Quality assurance and fraud detection
- 📍 Automated communication system linked to data quality screening
- 📍 Handset device security and management
- 📍 Invoice generation and automatic payments to support staff





## COST PER SURVEY TO IDENTIFY TONWSHIP ENTERPRISES ACROSS 9 AREAS IN GAUTENG\*



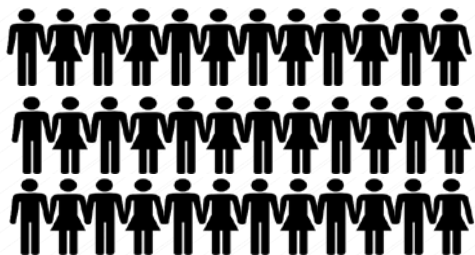
- Number of unique sites identified or targets reached may vary based on geographical sample size, difficulty to reach target, and survey length

ResearchGO allows for customised data collection across large geographical areas in the formal and informal sector by

- Partnering with local young people to optimise the logistics of data collection
- Leveraging transitional work opportunities to facilitate digital skill transfer in local communities
- Growing a network of profiled knowledge workers linked to University research

The cost per survey is optimised based on any of the following criteria

- Geographical reach
- Number of new sites identifies or targets reached
- Number of young people activated in the supply chain
- Collection time



GCRO QoL

Select focus block:

Set Home

☒ I'm ready!

I'm sick.

I'm busy.

CALL CENTER!

CANCEL

OK



GCRO QoL

Callback survey



March 2018



SUN	MON	TUE	WED	THU	FRI	SAT
25	26	27	28	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7



## Profile



## Groups



## Bank and Personal Details



## Tutorials



## Report a Bug



## Debug

## Survey - GCRO QoL

## History

## Heading

**Appointment #:** 565925

**Survey #:** Return to do FC

**Address:** 124 Gordon Rd, Bergbron, Randburg, 1712

**Allowed dates :** 2017-08-01 to 2020-08-01

**Allowed times :** 00:00:00 to 00:00:00

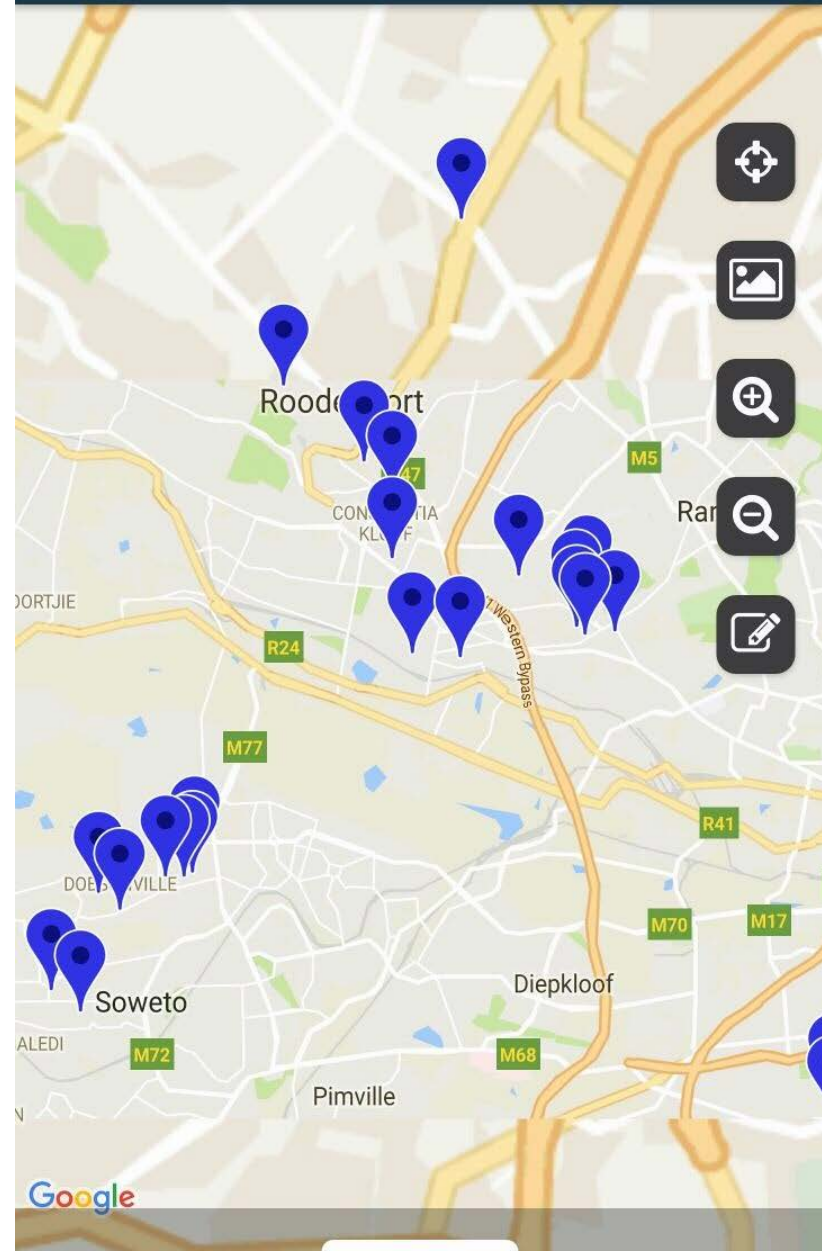
**Distance :** Calculating...

**Appointment #:** 565926  
**Survey #:** Return to do FC  
**Address:** 65 Newlands Rd, Newlands, Randburg, 20  
**Allowed dates :** 2017-08-01 to 2020-08-01  
**Allowed times :** 00:00:00 to 00:00:00  
**Distance :** Calculating...

Appointment #:	673394
Survey #:	Return to do QoL last chance
Address:	2196 Dondola St, Zola, Soweto, 1878, South Africa
Allowed dates :	2017-08-01 to 2020-08-01
Allowed times :	00:00:00 to 00:00:00
Distance :	Calculating...

Appointment #: 673395 M62  
Survey #: Return to do FC Johannesburg  
Address: Thebevapele St. Tladi. Soweto. 1868. South

## Survey - GCRO QoL



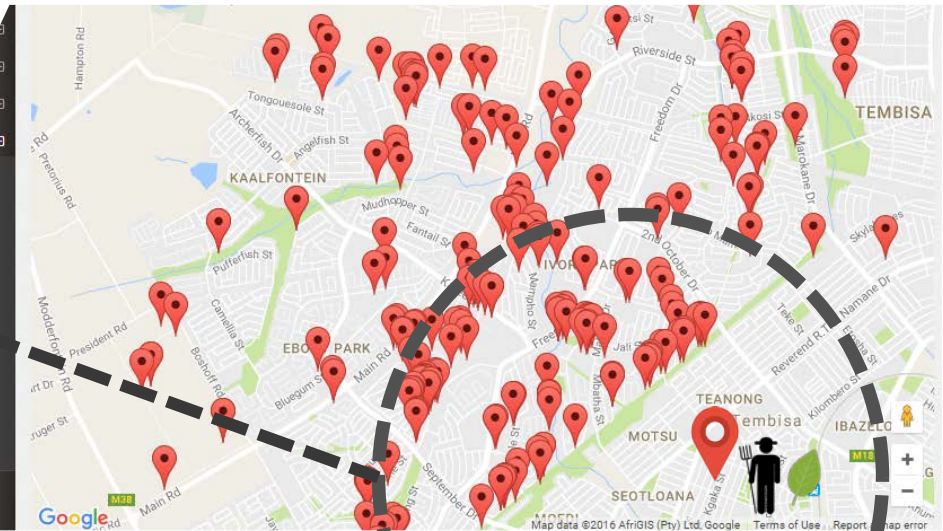


# Crowd sourcing food in Ivory Park

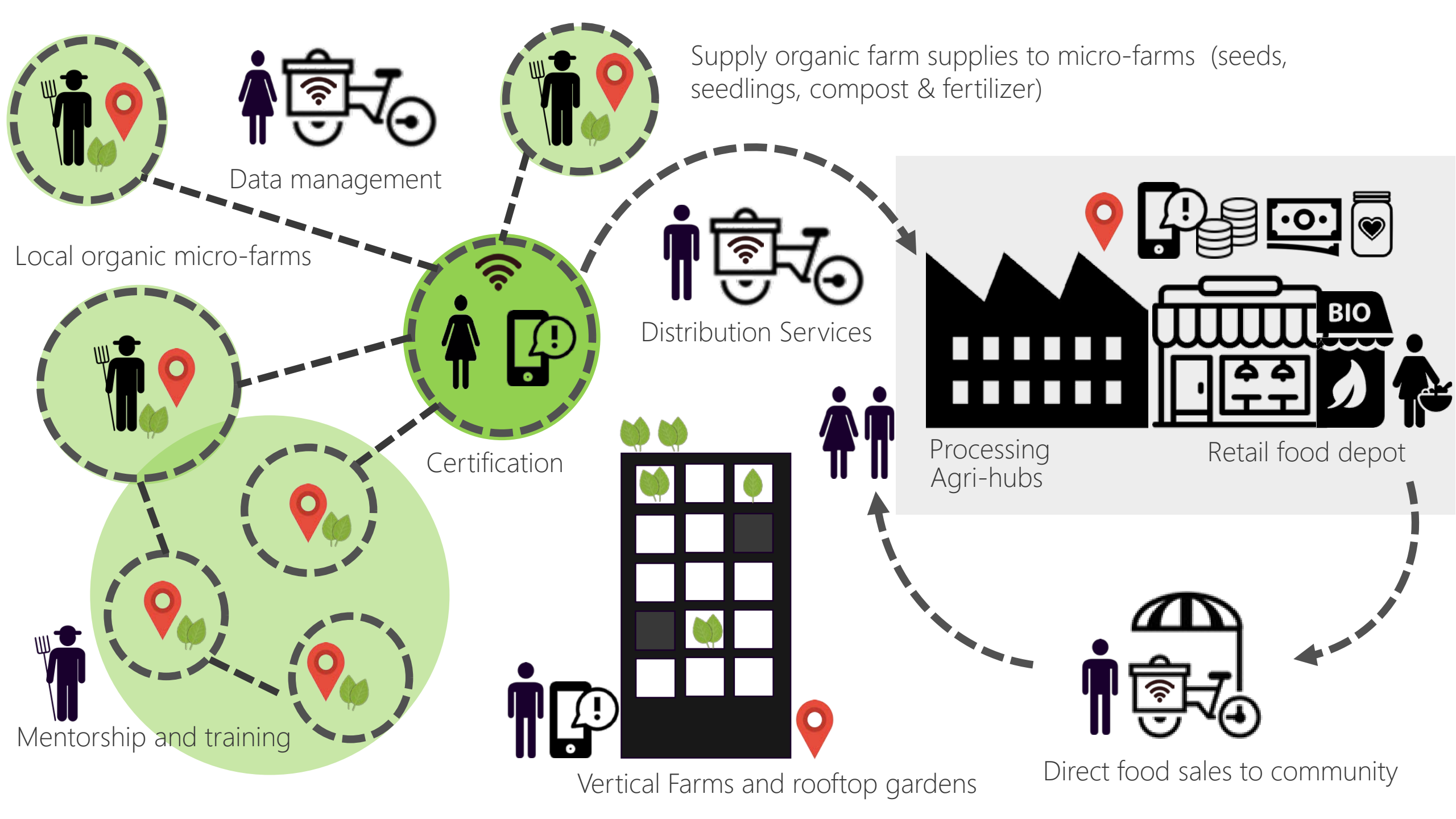


28 Data collectors registered 697 gardens and conducted 509 baseline studies to connect and expand an urban food ecosystem to unlock opportunities and advance local economies.

Over the past 8 months we have run a pilot with 75 active farmers around Gauteng, North West, and Limpopo trading close to R300 000 worth of produce online











# Township Economists



The **Tshepo1Million** initiative, a provincial youth employment strategy contracted the team to identify, map and surveying **80 000** township enterprises across 9 township areas in 10 weeks activating **800** unemployed youth to survey the enterprises

The team returned to map the risk profiles of **15000** of these enterprises in 2018





# Enterprise and Supplier development

- Targeted, focused support enabling data driven decision making
- Supply chain development and vetting linked to Projects which creates job opportunities
- Supply centric, matching (skills & services) which enables strategic sourcing
- Identifying opportunities for unemployed youth to develop supply chains in partnership with CEO initiative and YES for Youth
- Supporting capacitation through machine and blended learning to support online skills development

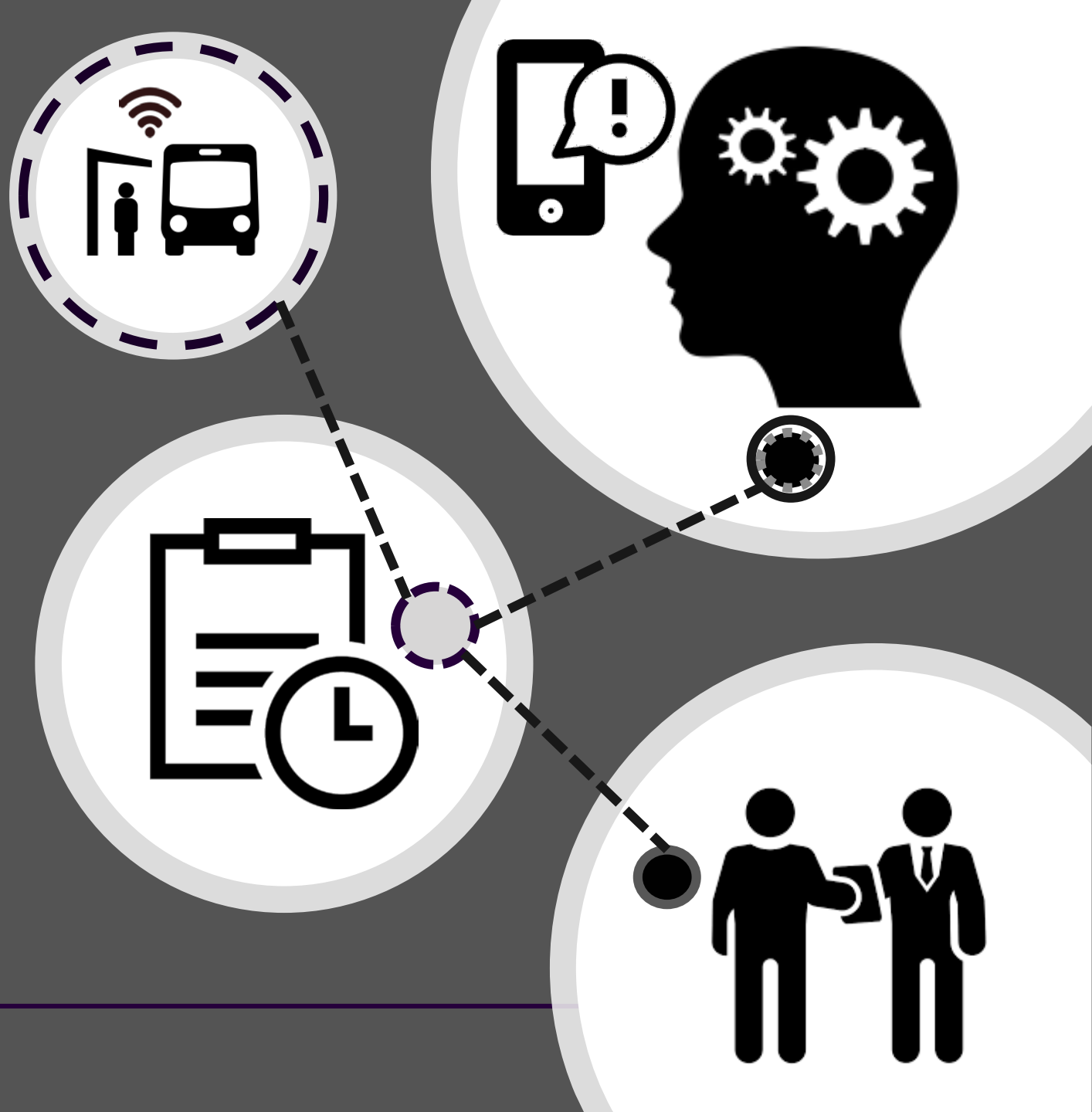






# Job seeker support

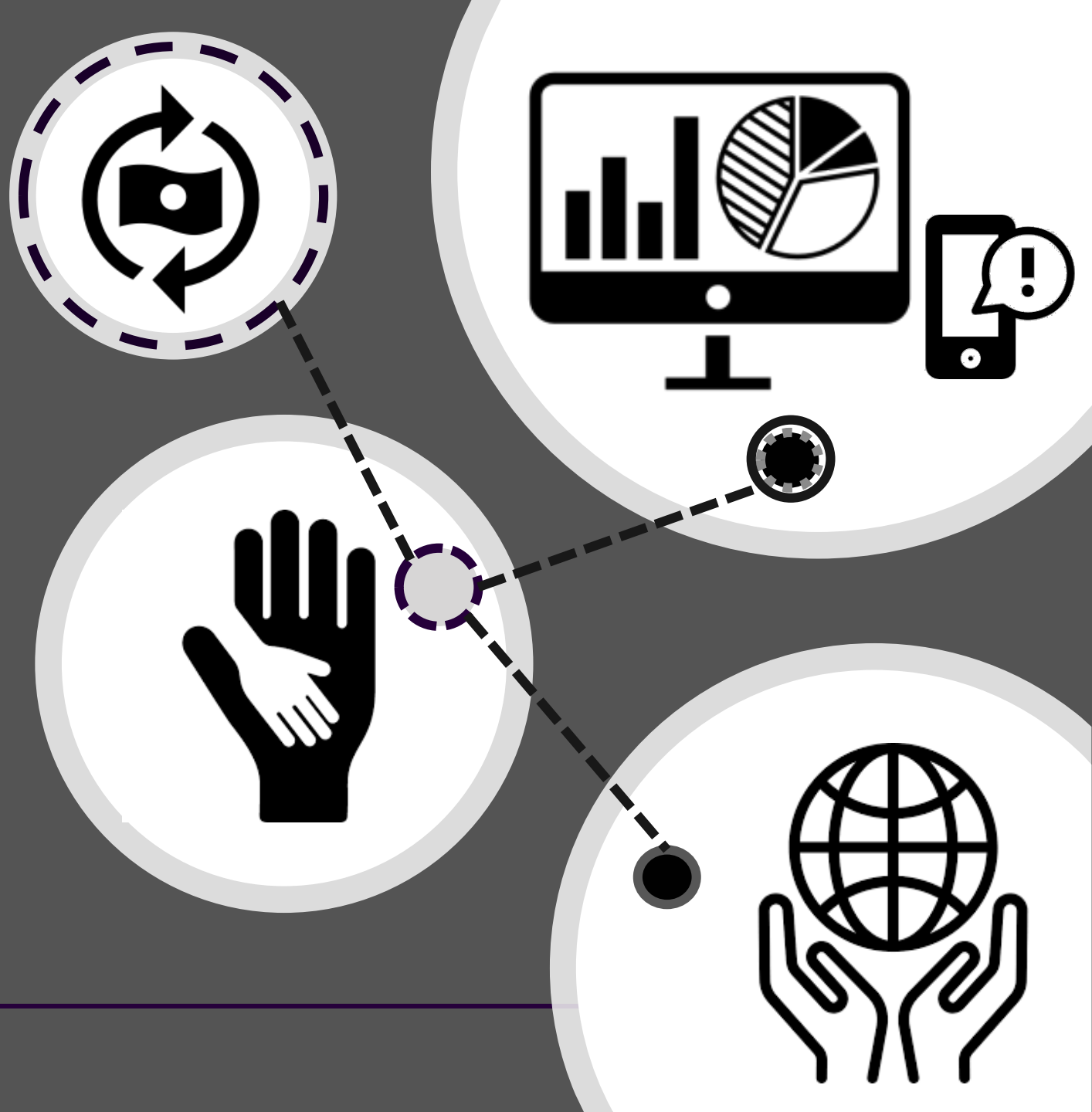
- GIS database matching employers/enterprises to job seekers
- Gig-economy skills development and opportunities
- Payment engine to pay as you earn
- Practical support for job seekers
- On the job, online training and evaluation
- Meta-data and rating systems





# Development Projects

- Data driven decision making
- Auditable interventions
- Evidence based reporting
- Longitudinal impact monitoring and tracking of development projects
- Digital community enablement and active citizenship





# Mapping 38 000 random interviews



The team is currently executing for the **Gauteng City Regional Observatory** 2017 Quality of Life survey

The 65 surveys will be conducted across all 529 wards in Gauteng, incorporating online fieldworker management system and smart logistics

280 local young people were trained to use the smartphone application to collect **38000** surveys - The biggest and most ambitious goal of GCRO to date

