NT· device and GTS system

To monitor and evaluate various public health interventions

February 2024

Novel-t

Novel-T in a nutshell

- Created in 2012 by 3 formers WHO staff who spent each 10 years in HQ
- Swiss company with offices in Geneva, with 40 staff consisting mostly of software engineers
- Provide services around information systems engineering with a focus on GIS
- Focus exclusively on Public Health and Humanitarian projects
- Working with UN agencies, NGOs, Governments and local partners to provide innovative solutions all around the globe
- We've aimed at generalizing solutions to make them applicable to different programmes

Our Focus

Plan

Geospatial Databases

Put everyone on the map to ensure that public health interventions leave no one behind

Geospatial Microplanning

Allocate your resources where it matters the most

Monitor

Geospatial Tracking Systems

Better understand the reach of your program and identify service delivery gaps

Georeferenced Data Collection

Expand your situational awareness beyond the limits of telecommunication networks and electrical grid

Evaluate

Data Integration and Harmonization

Power knowledge-driven decisions with integrated, centralized and harmonized data

Data Analytics and Visualization

Gain knowledge and steer your program with your data

https://www.novel-t.ch/#/focus

The NT· device – WHY - An alternative to smartphones

Drawbacks of smartphone when used during Public Health Intervention:

- High operational cost
- Many different models with different behaviours
- Require significant training to be operated
- Logistically complex to deploy at scale
- Batteries last less than 48 hours
- Often require solar chargers (additional costs)
- Not designed for harsh environments
- Tend to be stolen for their market value
- Difficult to control or predict communication costs (Internet browsing and streaming, updates)

The NT· device – Value Proposition

- **Operational cost lower** than a smartphone
- **Passive mode** (Geo-tracking only, no data entry): no interactions required to track field staff
- **Active geo-referenced data collection** at the lowest level
- Minimal (data entry) to no training (tracking only)
- Lasts **1 month** on a full charge
- Designed for **harsh environments** (water/dust resistant)
- Can operate fully **offline**
- Can **transmit data** via data plan (**SIM** card) or **Bluetooth** using GTS Connect
- Can be configured remotely via the GTS Dashboard or the Android Phone App GTS Connect by Bluetooth

The NT· device – Overview

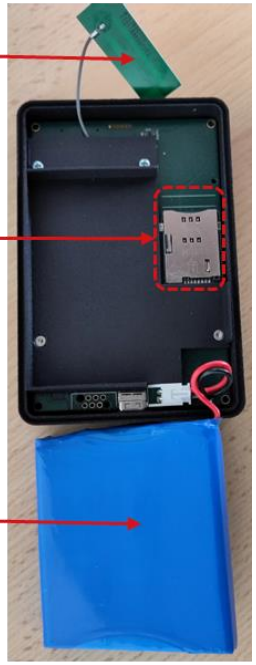
Screen with backlight

4 screws to open

GSM antenna

SIM card holder

Large battery



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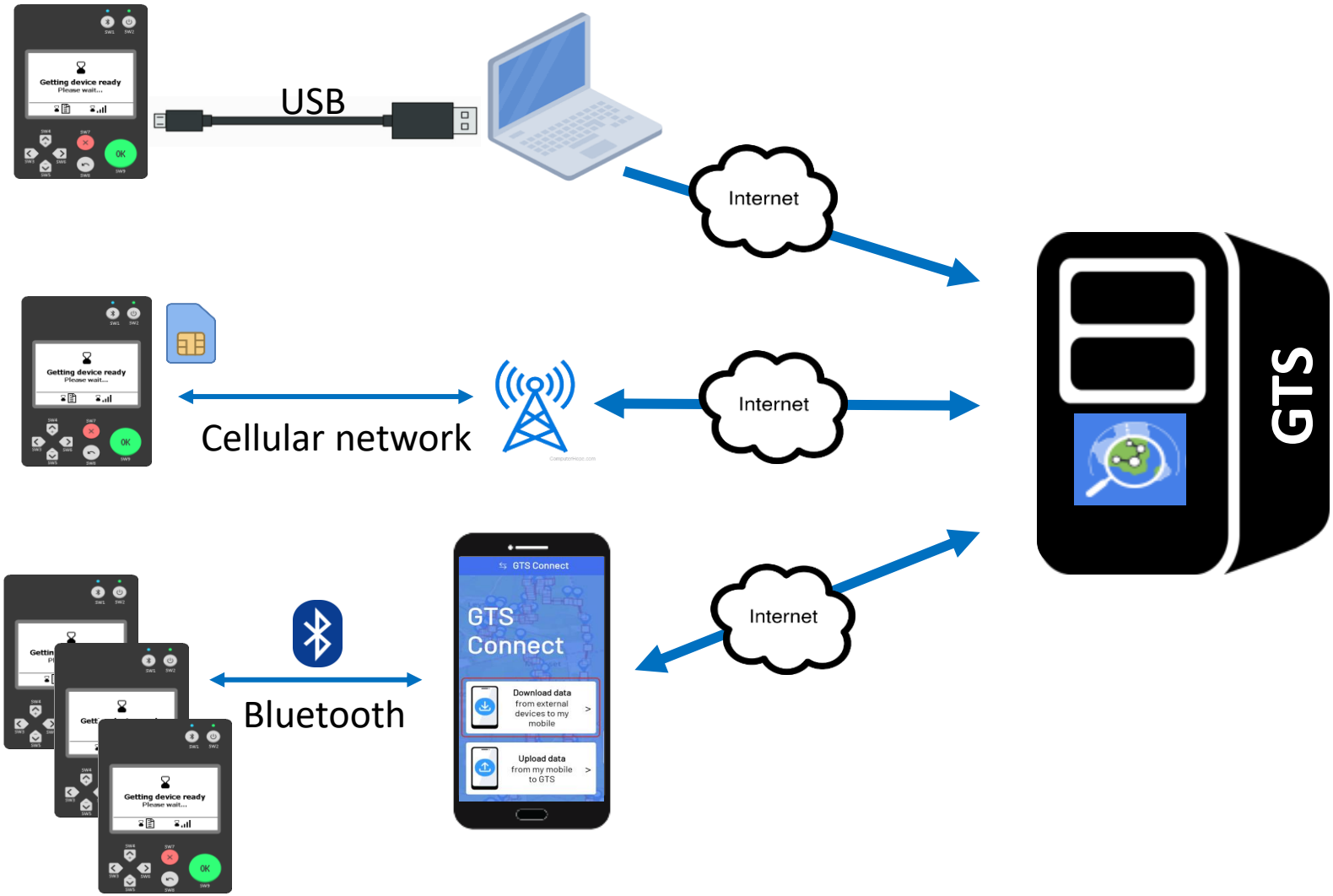
The NT· device – Connecting with the GTS



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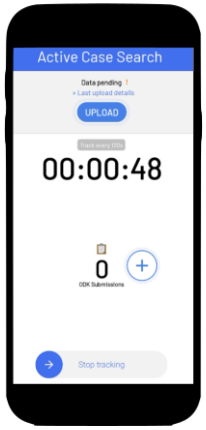
NT· Product variations

- Non-connectable device (does not include a SIM card slot) : **140 USD**
  - Configuration and extraction of data possible, in batch, using the Bluetooth GTS Connect android app
- Connectable device (includes a SIM card slot) : **160 USD**
  - For real-time tracking/data uploads over the internet
- Connected device (under testing) : **160 USD** + monthly fee
  - Providing worldwide data coverage (monthly communication costs under review)
  - Possible because predictable volume of data/communication costs, unlike smartphones
    - No need to open the device to insert/change the SIM
    - No need to setup contracts with national telecom companies
    - Can be deployed almost anywhere where there is connectivity, irrespective of the country
    - No more communication issues near borders
      The device will connect to the strongest available network

The Geospatial Tracking System (GTS)

- Works with NT· devices or Android phones
- **Self-service** within your organization's workspace
- **Load a geospatial micro plan** depicting the areas targeted by your intervention
- **Know the time spent in areas** targeted by your intervention and identify service delivery gaps
- **Course correct** your intervention from one day to the next, while teams are still in the field
- **Generic** => Monitor multiple types of interventions (Vaccination campaign, ITN distribution, MDA, supervisory visits, enumeration etc.)
- Compute performance **indicators** using GPS tracks and collected data
- Owned and sponsored by GRID3

GTS system: GTS Tracker mobile app



Mobile App

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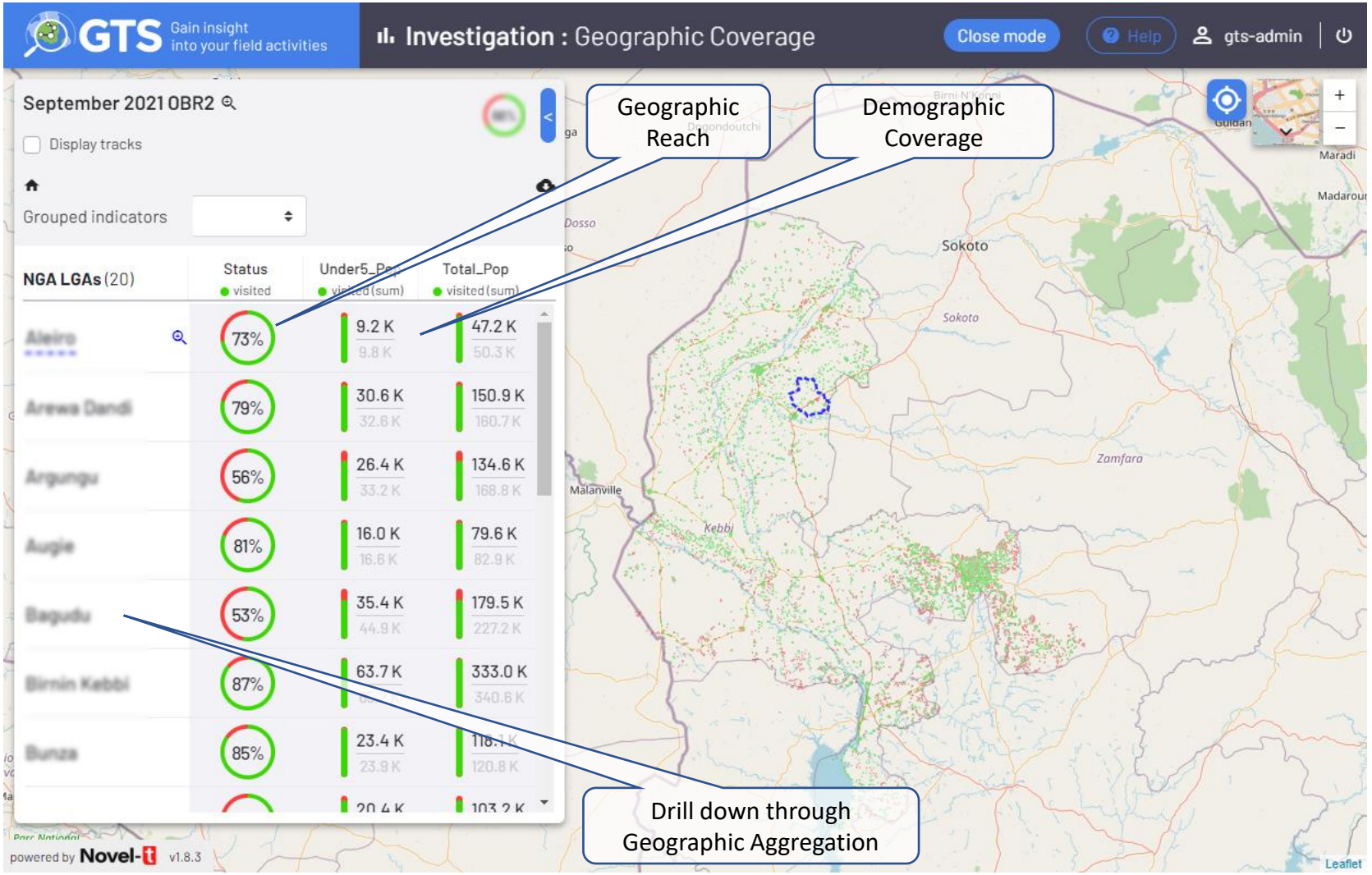
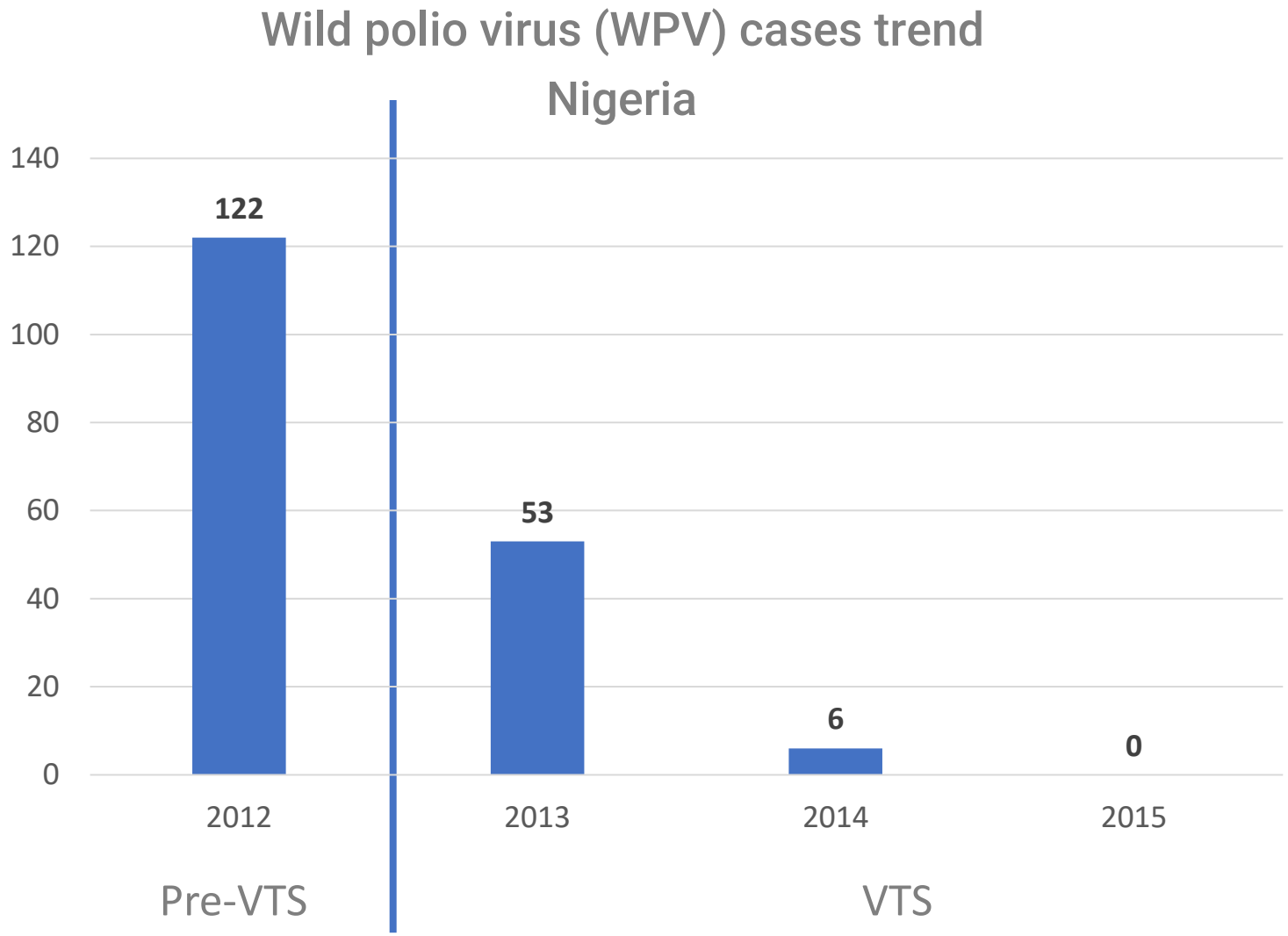
GTS system: Web dashboard



Impact of tracking



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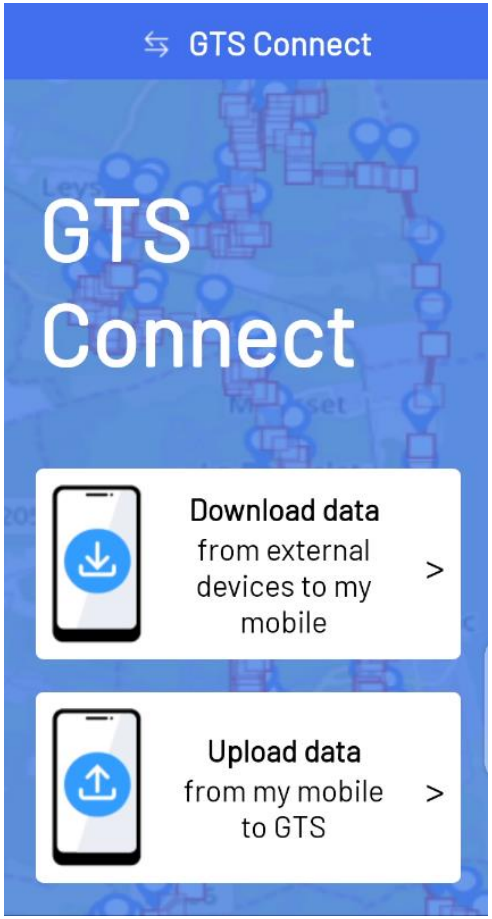
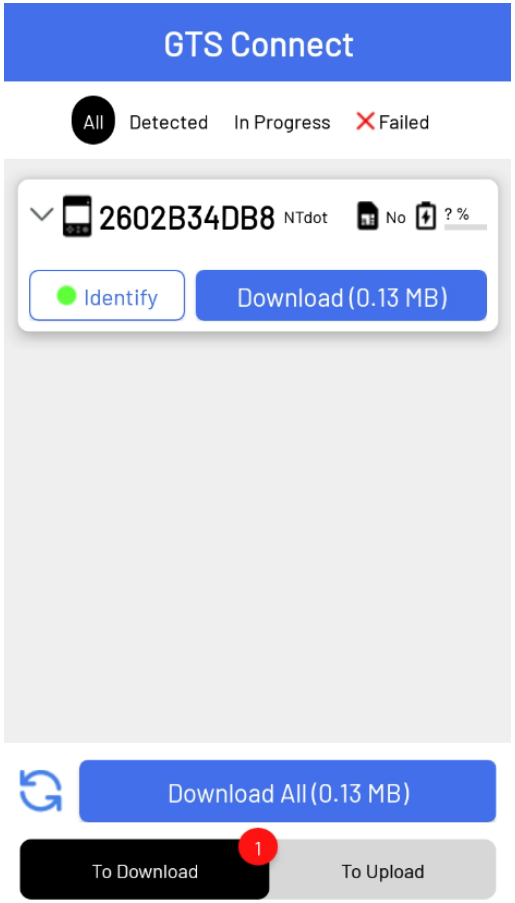
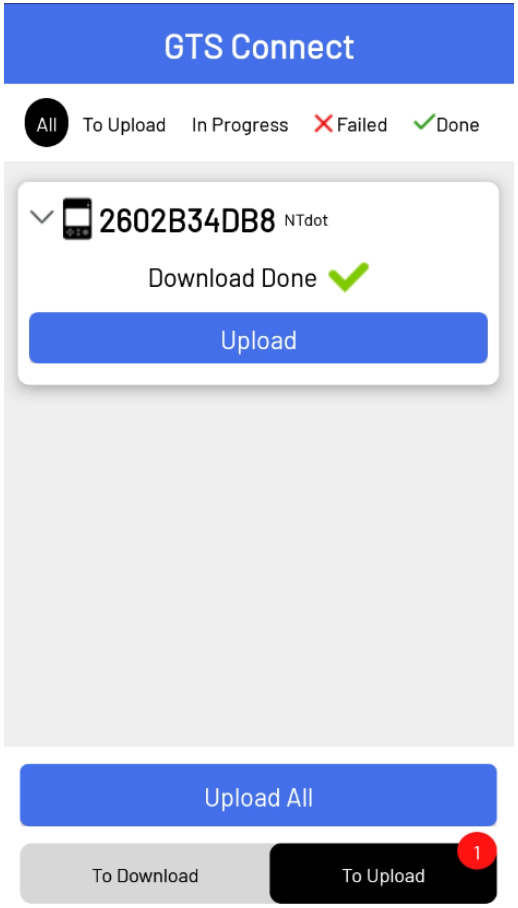
GTS system: GTS Connect Android mobile app



Main screen



Collect data from devices



Send data to GTS

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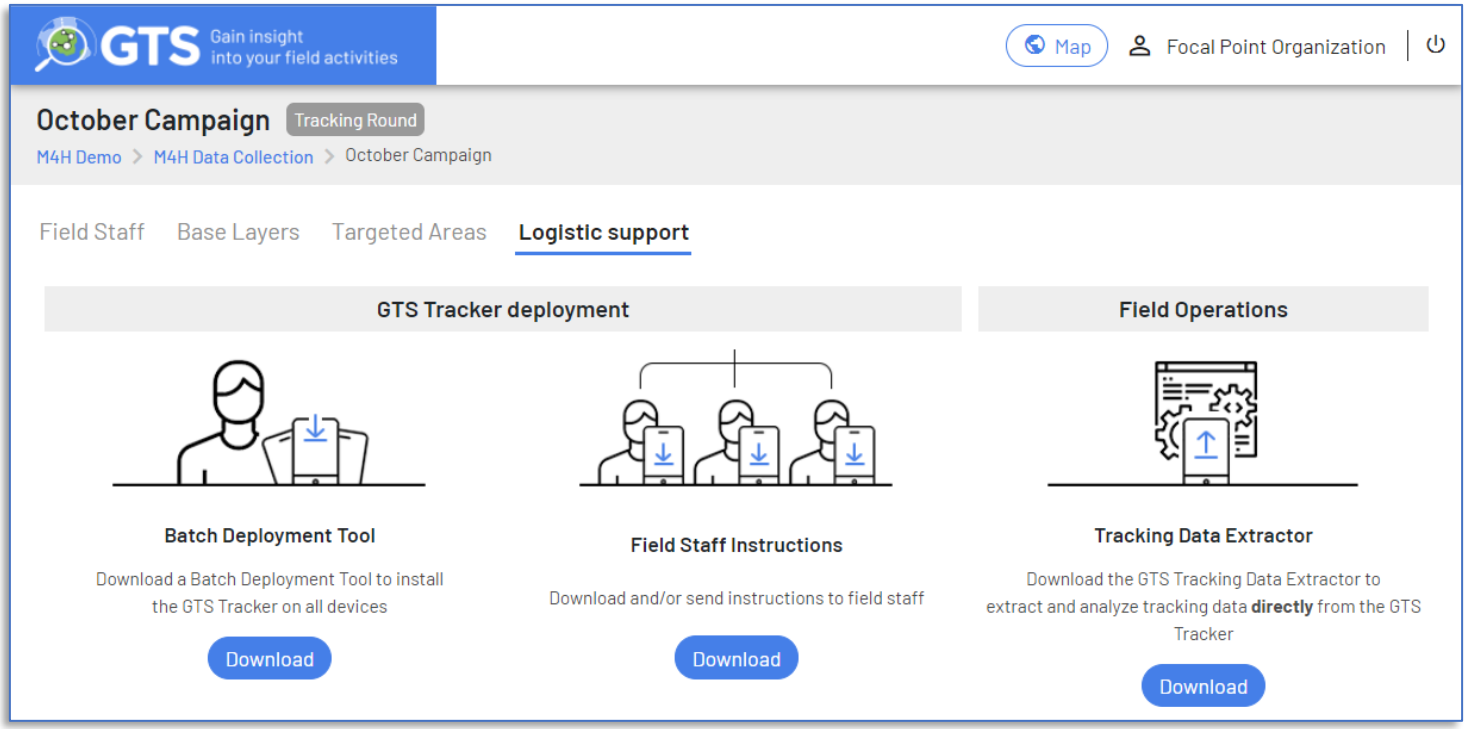
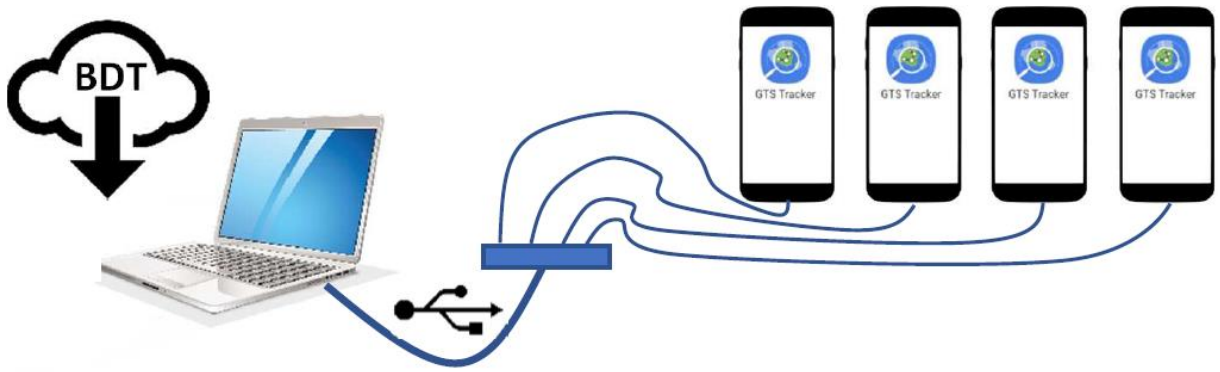
The Geospatial Tracking System (GTS) - Logistics





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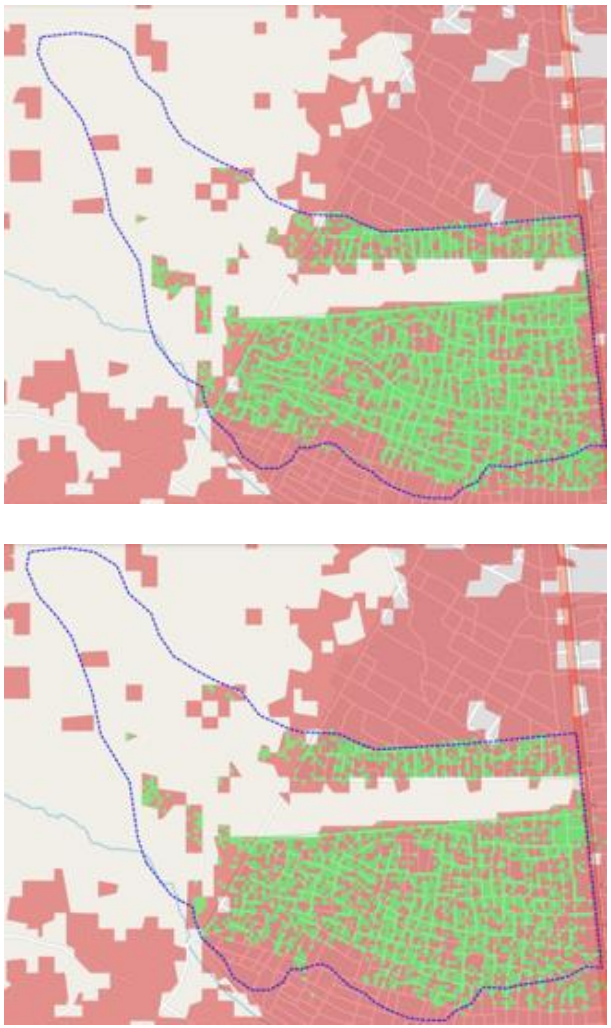
NT· pilot Q4 2023: DRC and NGA – 40 devices paired with phones

DRC (urban) - WHO AFRO & GRID3

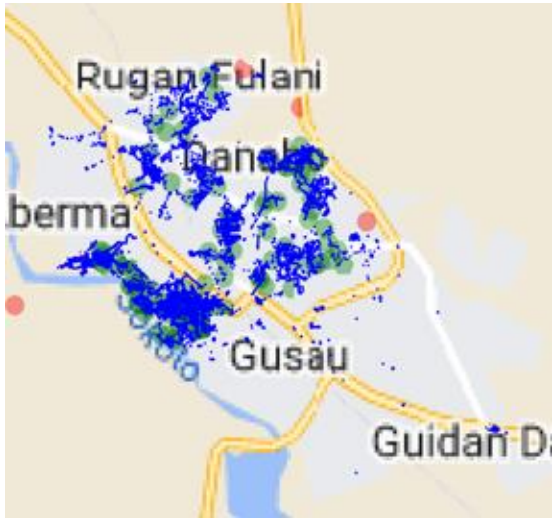
NGA (rural) - NPHCDA & eHealth

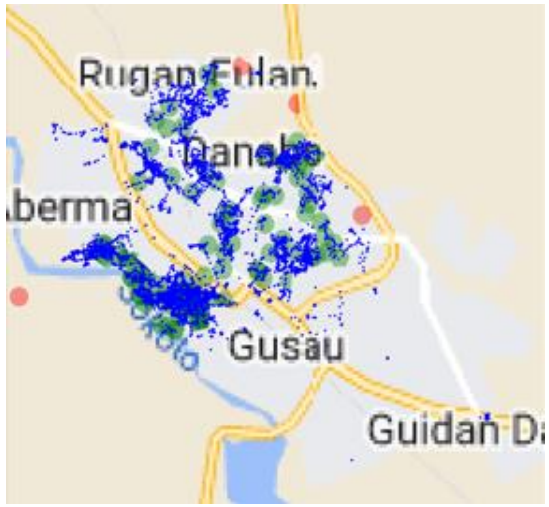


NT· devices

Comparable Results

Smartphones





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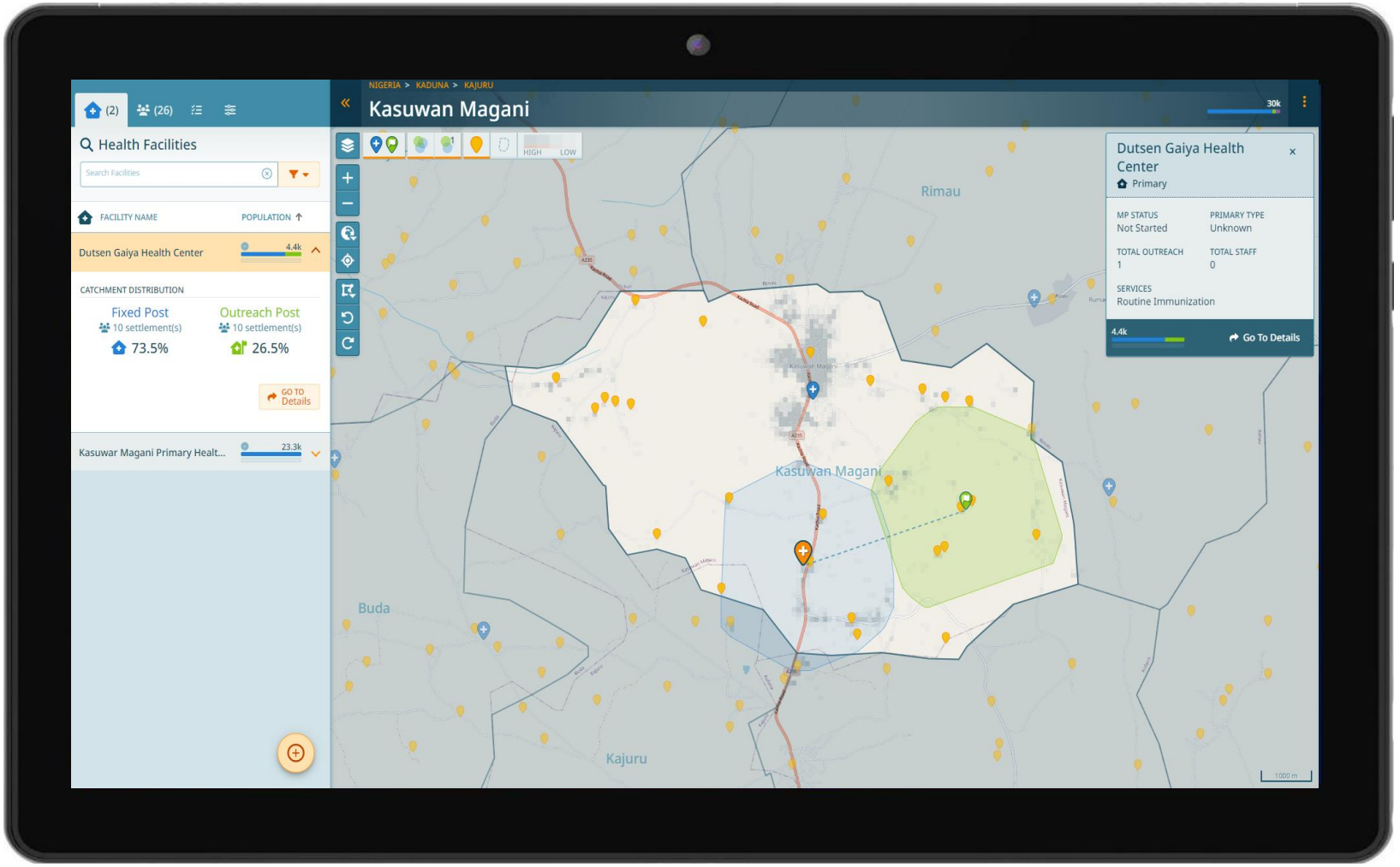
Novel-T is working with its partner for the mass production of the device using plastic injection into a mould.

The following changes will be implemented compared to the proto:

- **Thinner** (by 6 mm) while keeping the same battery autonomy (25 days in regular usage)
- **Metal inserts** for screws to facilitate opening/closing and ensure long term robustness
- **Rubber like coating** over the front covering also the buttons to significantly improve robustness and protection provided by the casing (waterjet and dust resistant IP64)
- **A notch** to allow to attach a lanyard with a loop of thread

New kid on the bloc: Geospatial Microplanning Tool (GMT)



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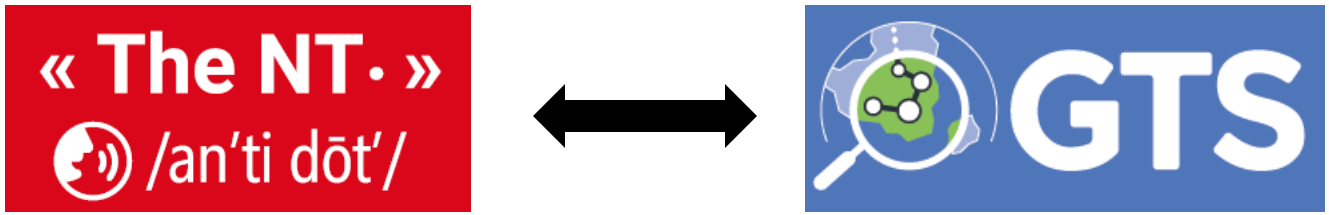
Geospatial Microplanning Tool (GMT)

- A tool to build a digital geospatial micro plan in the field
- Tested in Nigeria.
- **Expected to be piloted in NGA** this year with GRID3

Key features:

- **Build** health facility **geospatial catchment**
- **Leverage population estimates**
- **Maintain** or fix your base map in the field
- **Work offline** and sync when connectivity
- **Maintain health facility information**
- **Maintain settlement information**
- **Follow** geo spatial micro plan **building progress**
- **New technology**. Web application that works offline
  (No mobile app. Multi-platform: Android, Apple, Windows)

DEMO



Contact Us

Route de Peney 2/4
1214 Vernier
Geneva, Switzerland

www.novel-t.ch

info@novel-t.ch

Patrick Briand (presenter): ***pb@novel-t.ch***