Going Local: How Communities, Open Data and Tech Shape Data-Driven Impact

Tuesday, 26 May 2026

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Humanitarian OpenStreetMap Team

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Session overview

- ✓ Welcome - Nwando Okoh HLA
- ✓ Webinar introduction – Melodee Okigbo, HOT
- ✓ Open data and tech mapping – Ola Akintola, HOT
- ✓ How communities generate and use data – Hannah Kates, Public Tech Studio Panel discussion: how tech/open data + communities equals data driven impact – Melodee, Ola & Hannah
- ✓ Q&A + Session wrap up – Nwando Okoh, HLA

Please use the Q&A section to share your questions
The session is being recorded. Zoom captions are enabled

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Speakers

Omowonuola Akintola
Geospatial and Data Specialist, Humanitarian OpenStreetMap Team (HOT)

Hannah Kates
Founder, Public Tech Studio

Melodee Okigbo
Communications Strategist Intern, Humanitarian OpenStreetMap Team (HOT)

Nwabundo Okoh
Communications and Marketing Lead Humanitarian Leadership Academy

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Before we start, an icebreaker!

Scan the code to join the session or go to menti.com and enter the code 6234 6006

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A bit of HOT's history

On January 2010, a magnitude 7 earthquake struck Haiti causing devastation in a country already experiencing extreme poverty. Damage was particularly severe in Haiti's Capital Port au Prince. Approximately 200,000 people died.

When the earthquake struck, an international response grew quickly, however when they reached the ground responders were unable to effectively coordinate their efforts, due to the lack of maps


Port-au-Prince
Nationale No 2
rue Capois
avenue Lamartinière
State of the map on Jan.12.
Poor representation
of reality.
Hundreds of people start
to volunteer.
Cité Soleil
R9
Nationale No 2
Boulevard La Saline
Boulevard Jean Jacques Dessalines
Avenue Haile Sélassié
Port-au-Prince
Rue Pavée
Route de Delmas
Delmas
Avenue John Brown
Avenue Pan-Américaine
Pétionville
18 Days Later...
Port-au-Prince, Haiti
January 30, 2010

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MISSING DATA

- If you are missing in data, you're missing in services
- Unequal geospatial coverage of the world
- The world changes
- Likely missing in innovations

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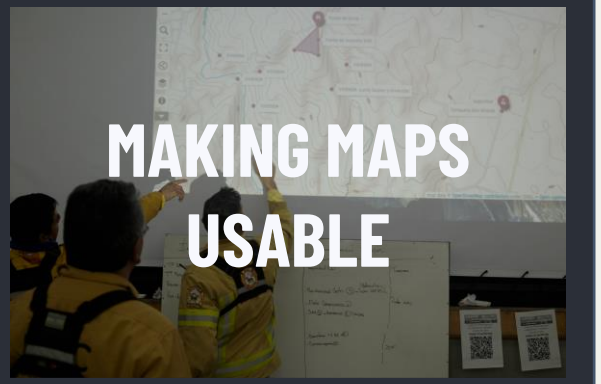
HOT envisions a world where...

An ecosystem of open mapping technology enables anyone to make open geospatial data available for local decision making in disaster response and humanitarian context.

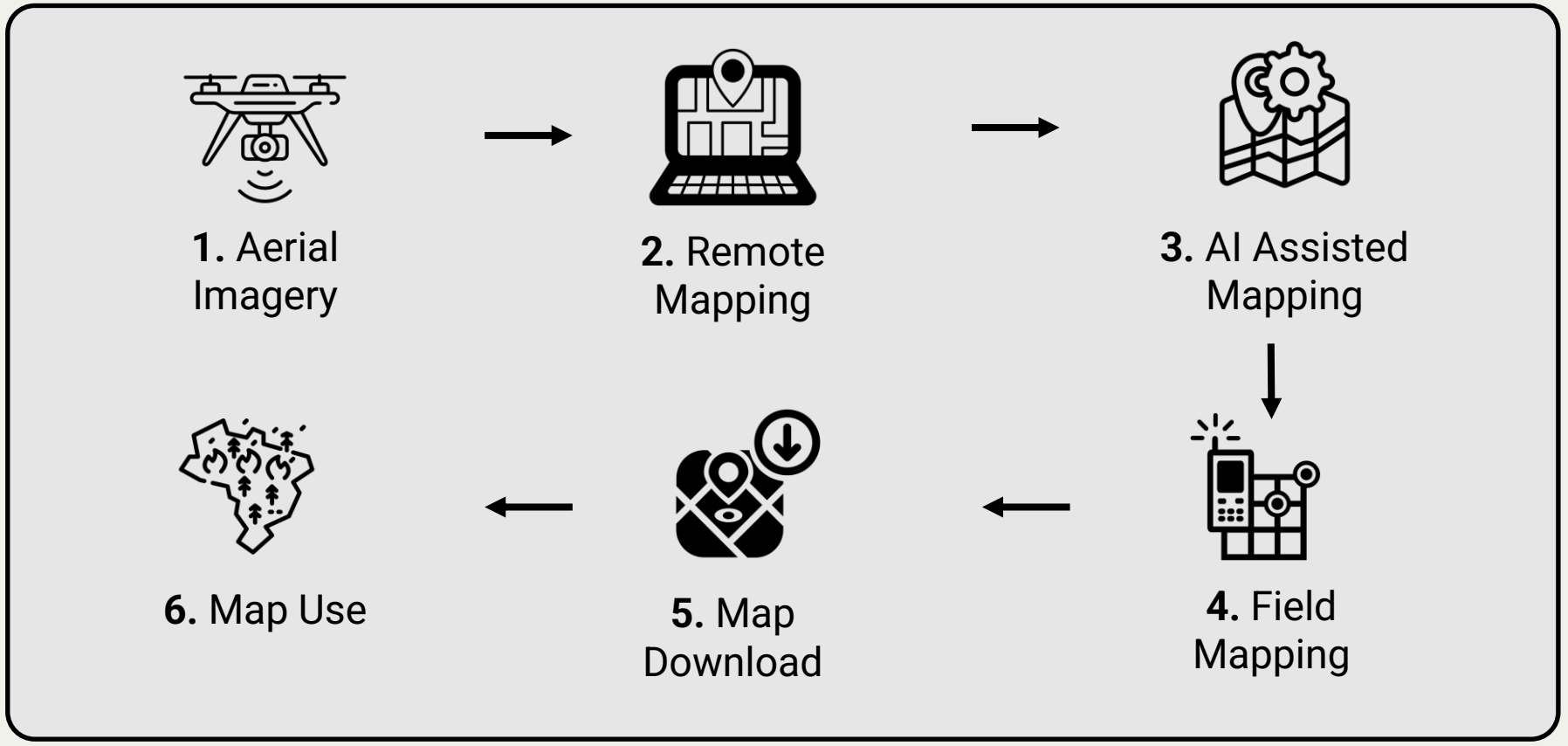
Can the entire process be done with community ownership tools?

Mapping, Accessible to all.

1. Imagery → **2.** Mapping → **3.** Field



Community Led Open Mapping Solutions



Open Data Solutions | Humanitarian OpenStreetMap Team
https://hotosm.github.io/e2e-mapping

Icons by Wehape, Amethyst Studio, Arif Subekti, Sara Tan, Pravin Unagar, Foxyard Studio, Vectostall - The Noun Project

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Example

Community drone imagery (Jai-mata settlement flown by OSM Sierra Leone)

VS

Other accessible imagery(Bing & MapBox)

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How Freetown residents are using drone mapping to shape their city

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Mapping Freetown

With rapid growth within informal settlements and climate challenges, planning, especially without up-to-date high-quality imagery, was difficult for the Freetown City Council (FCC).

FCC, HOT, and other partners launched a community-led drone mapping project to capture the city in high-resolution detail.

Residents in Freetown City, participating in the city wide drone mapping activities including, persons with disabilities, informal settlers, and Mayor, Yvonne Aki-Sawyerr.

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What this enabled

- Analyzing access for PWDs
- Formal recognition of informal settlements
- Disaster risk planning
- Waste routing
- Digitization of the entire central business district

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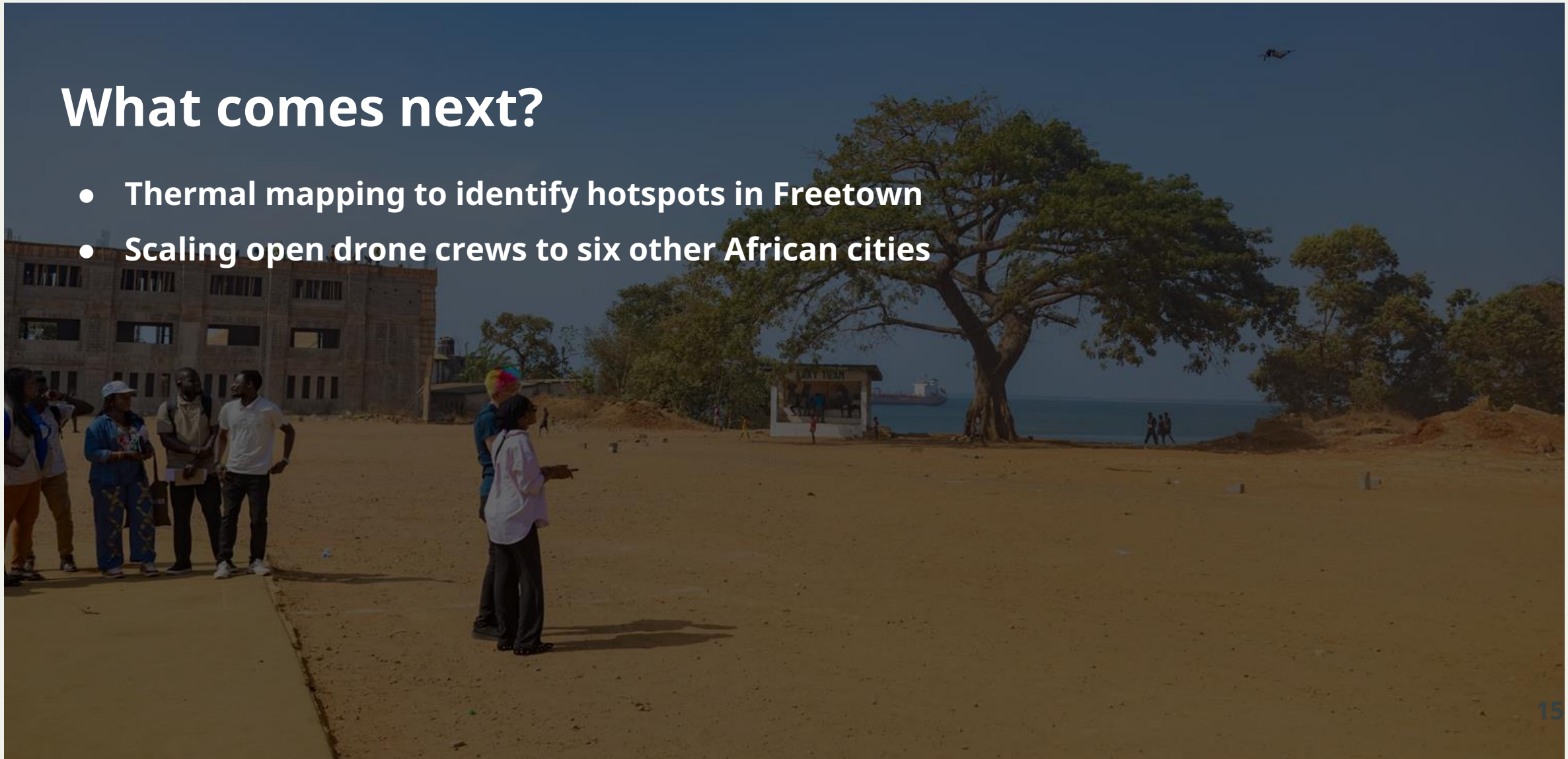
What comes next?

- Thermal mapping to identify hotspots in Freetown
- Scaling open drone crews to six other African cities



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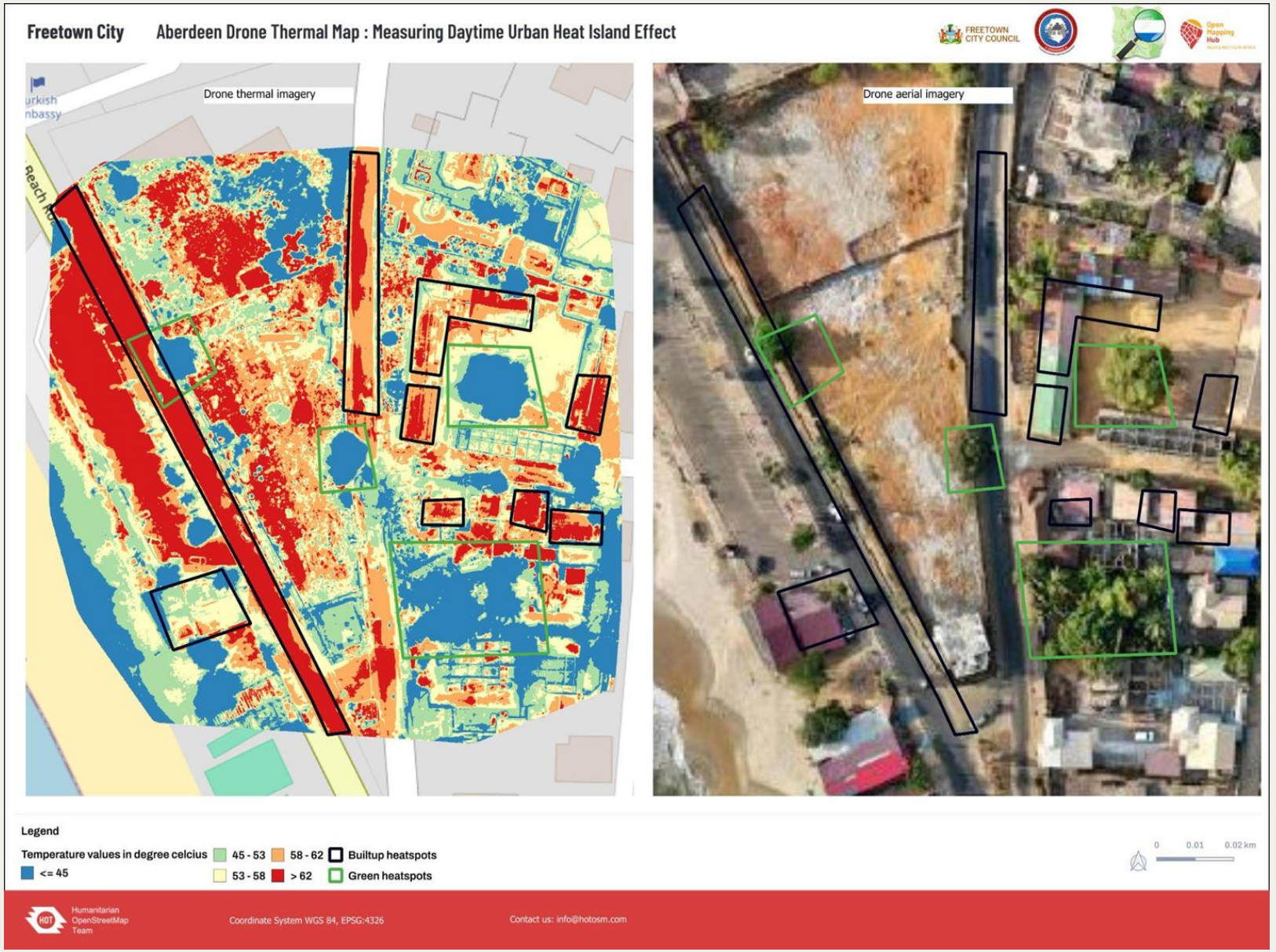
Thermal drone imagery generation

Capacity building:

- on the use of drones for mapping amongst relevant stakeholders in Sierra Leone
- on conducting thermal drone mapping flights for measuring urban heat island (UHI)
- on thermal drone imagery processing



Community mapping to identify heat hotspots with Freetown, Sierra Leone.

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Scaling open drone crews to six West African cities

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How can you get involved?

Scan the link to see how open mapping, data and tech can spark change in your city.

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Case Study

Public Tech Studio's project mapping water transportation in Lagos, Nigeria utilizing OpenStreetMap and HOT's support

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Public Tech Studio

Creating public data products and technology solutions to inform decision-makers across Africa.

Our work has a special focus on the continent's fast-changing urban landscape.

Open Data Projects

self-directed and self-funded

E.g. mapping infrastructure, analysing population estimates, aggregating data on quality of life in cities

Commissioned Solutions

for NGOs, foundations, and government agencies

E.g. national surveys, field data collection, and bespoke data viz and software development

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Range of open data projects

- **Public transportation in Lagos** - Mapping services for the first time and making them publicly available online through interactive maps and partnerships with navigation apps
- **Flooding in Lagos** - Civic engagement guide for registering complaints with the government
- **African election results** - Collecting, aggregating, and publishing African election results in engaging data visualizations
- **African population estimates** - Aggregating, analyzing, and simplifying innovative population estimates that utilize satellite imagery

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How we have leveraged OpenStreetMap

- Finding geospatial data and useful locations
- Publishing geospatial data we have created so it can reach a wider audience

Example: Lagos Ferry Map project

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Goal of the Lagos Ferry Map

Map the entire Lagos ferry network and make it freely available online, capturing both private/informal routes and LagFerry routes

Why?

- Educate Lagos commuters about the availability and advantages of ferries
- Enable faster, more enjoyable commutes
- Spark dialog about expanding and improving multimodal transit
- Reduce traffic congestion

Part 1: Online data gathering

- Started with public list from government website of terminals, jetties, and landings (limited by locations under their purview)
    - Geocoded locations based on their names
- Mined Google Maps and **OpenStreetMap** to find additional locations that have ferry-related keywords in their names
- Created a consolidated geospatial dataset that we could divide up and assign to field data collectors

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Part 2: Field data collection

- Recruited students and recent graduates to be field data collectors
- Conducted interviews with operators and passengers at each location to document detailed information on all destinations, schedules, operators, boats, costs, etc.
- Collected GPS logs while riding the ferry routes and recorded new facility locations
- Assigned each ferry location to two field data collectors so we could compare and verify each contractor’s findings against the other’s

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Part 3: Cleanup and creation of interactive web map

- Compiled and reconciled all the field data
- Cleaned and simplified geospatial data
- Created an interactive web map for displaying the data
- Conducted usability tests to identify additional improvements
    - Low map literacy
- Published online!

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Part 4: Partnerships and ongoing improvements

- Published data on **OpenStreetMap** (thanks to training support from HOT and OSM volunteers)
    - Bonus: This means the ferries appear in many other interactive maps online.
- Established partnerships with popular navigation apps (Google Maps, Lara.ng, OrnaMap)
- Established partnership with government (LASWA) to collect some data updates through their staff
- Ongoing:
    - Improving SEO
    - Improving user experience on our website (please share feedback!)

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Panel Session

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Q/A

About the organisations

Humanitarian Leadership Academy is a global learning and capacity strengthening organisation with a mission to accelerate the movement for locally led humanitarian action. We are team within Save the Children and our work focuses on leadership development through coaching and mentoring, digital learning innovation, world class locally led humanitarian learning and convening humanitarian communities in person and online.

Humanitarian OpenStreetMap Team also known as HOT is a global nonprofit organisation that uses open mapping and community driven geospatial data to support humanitarian response, disaster preparedness, development and local decision-making. HOT is often described as the Wikipedia of maps.

Public Tech Studio is a civic technology and open data organisation focused on creating public data products and technology solution that help solve important information gaps across Africa.

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Closing & Resources

- Free Humanitarian Learning - Kaya Connect
- Join the HLA Community
- Visit Humanitarian OpenStreetMap Team
- humanitarianleadershipacademy.org
- Link to course on open mapping (data use, tech tools, concepts): https://learn.hotosm.org
- Link to openaerialmap (free high-resolution aerial imagery repository): https://openaerialmap.org/
- Find out more about end-to-end mapping: https://www.hotosm.org/en/tools-**resources/tech-product-suite/**
- www.PublicTech.studio
- www.LagosFerries.com
- Joint blog post with HOT on the ferry mapping

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