Resource Access

What:

- Healthcare: Clinics, Hospitals...
- Education: Schools (Primary, Secondary, etc)
- Water: Wells, Pumps, Taps...
- Electricity: Generators, Transformers, LV/MV line...

Where:

- Access is limited
- Sub-Saharan Africa (minus South Africa)
- India, Indonesia
- Rural regions

Process

How:

- Collect Data: From existing sources, via Formhub, other tools
- Frame it in Economic terms (Supply, Demand)
- Assess "Gaps" in supply
- Develop plan to fill the gaps

Healthcare: Facility Planning demo

Sea Urchin Story (Healthcare is more effective with Electricity)

Electrification Planning

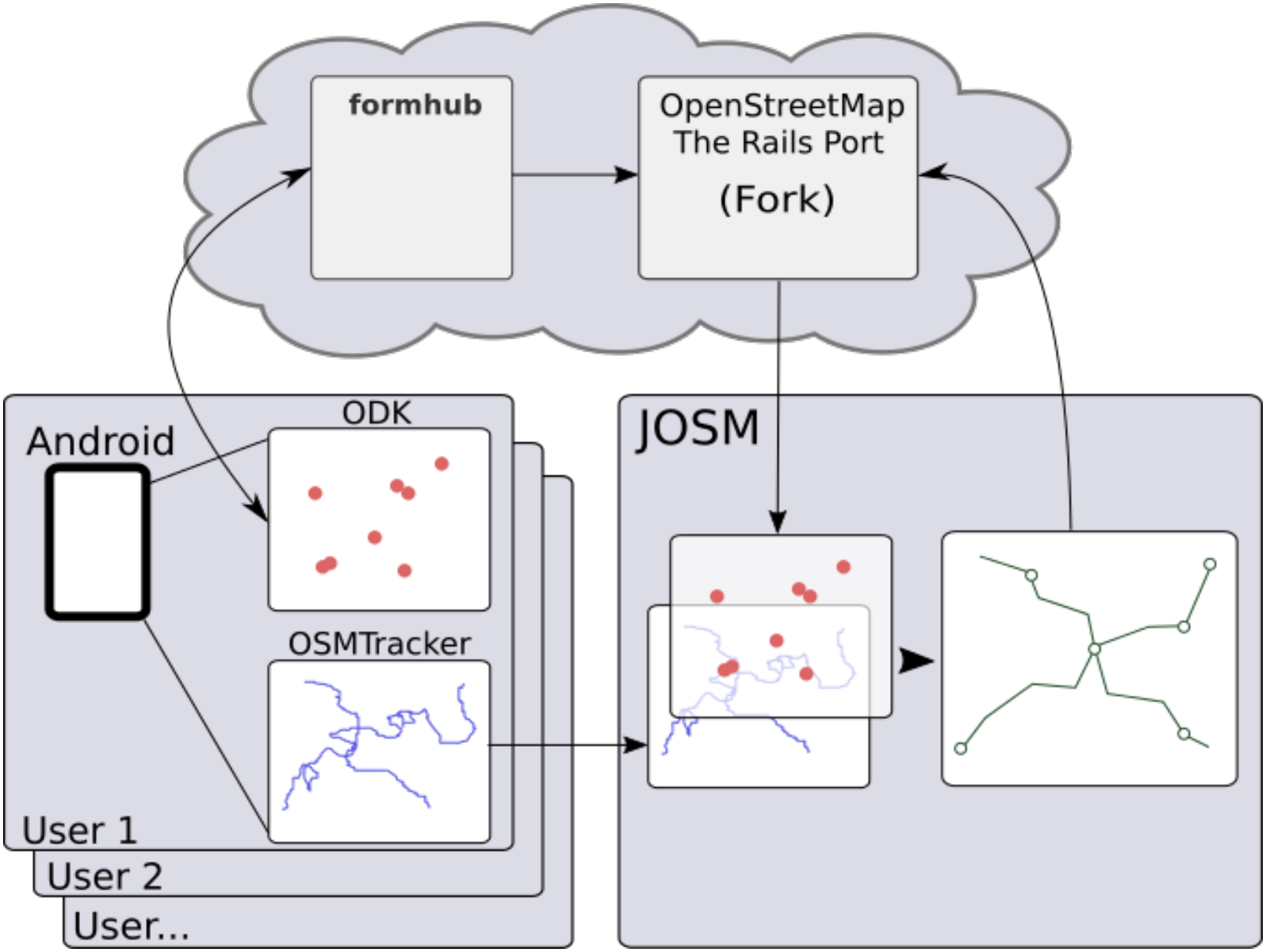
Inputs:

- Supply: Existing grid
- Demand: Settlements to be electrified
- Model Parameters: Generation, Distribution costs, Growth/Demand curves

Outputs:

- Electrification selection per settlement (Solar, Diesel, Grid)
- Costs (settlement and regional level)

Data Collection System



OpenStreetMap

Virtues:

- Topological Model: Nodes, Ways and Relations
- Flexibility via Tags
- Versioned
- Open
- Loads of existing data and tools

Issues:

- Open license might not fly
- Technical uncertainty

Approach 1: The Black Hole

Points via FormHub, Lines via OSMTracker (GPS)

$\Downarrow$

Best Practices, Dropbox

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Ill-Defined Processing

Approach 2: Frankenstein

Points via FormHub, Lines via OSMTracker (GPS)

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Synchronization, JOSM

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Private Instance of OpenStreetMaps (plngridmaps.modilabs.org)

Results

Numbers (toward our Primary Goal):

- 700 km of mv grid digitized
- Average of about 50 km of mv grid captured per day
- 2357 km of mv grid managed

The System (toward our Secondary Goal):

- Still not pretty, but effective and improvements to come