

# GRASSROOTS

giving neighbors a **sense** of community

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**Research**

**Survey**

40 respondents

**Interviews**

7 average neighbors, 6 experts

**Co-Design Workshop**

10 participants

**Storyboards**

12 concepts

**User Testing**

6 prototypes



A group of diverse people are gathered around a large table, participating in a community-building activity. They are using colorful blocks (like LEGOs) and papers to create structures. The atmosphere appears collaborative and focused. The text is overlaid on the image in a semi-transparent dark box.

## Unexpected Insights

### 1. Pioneers

central neighbors take the initiative to build community

### 2. Involvement

neighbors want to be involved, but are held back by logistics

### 3. Sharing

people trust their neighbors, even if they don't know them

### 4. Technology

people want to use technology to improve their neighborhoods

# Trillions of Sensors

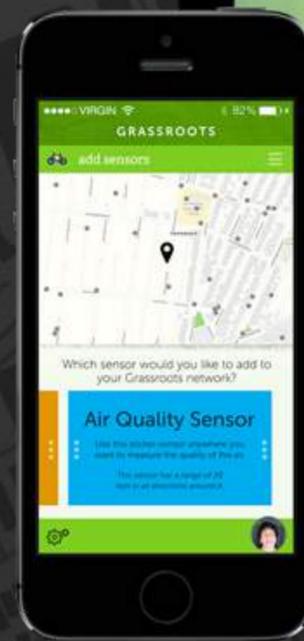


# The Opportunity

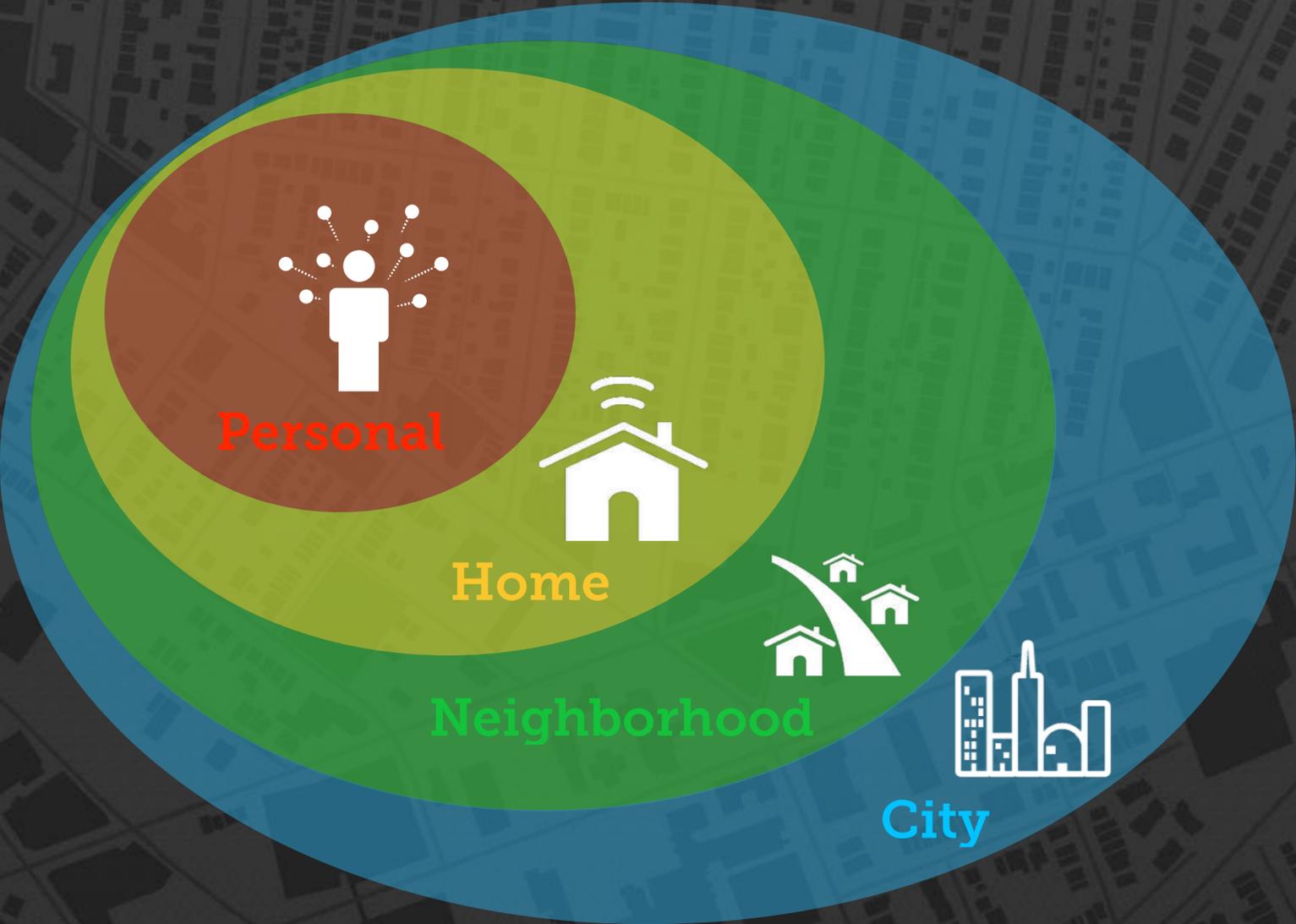


# GRASSROOTS

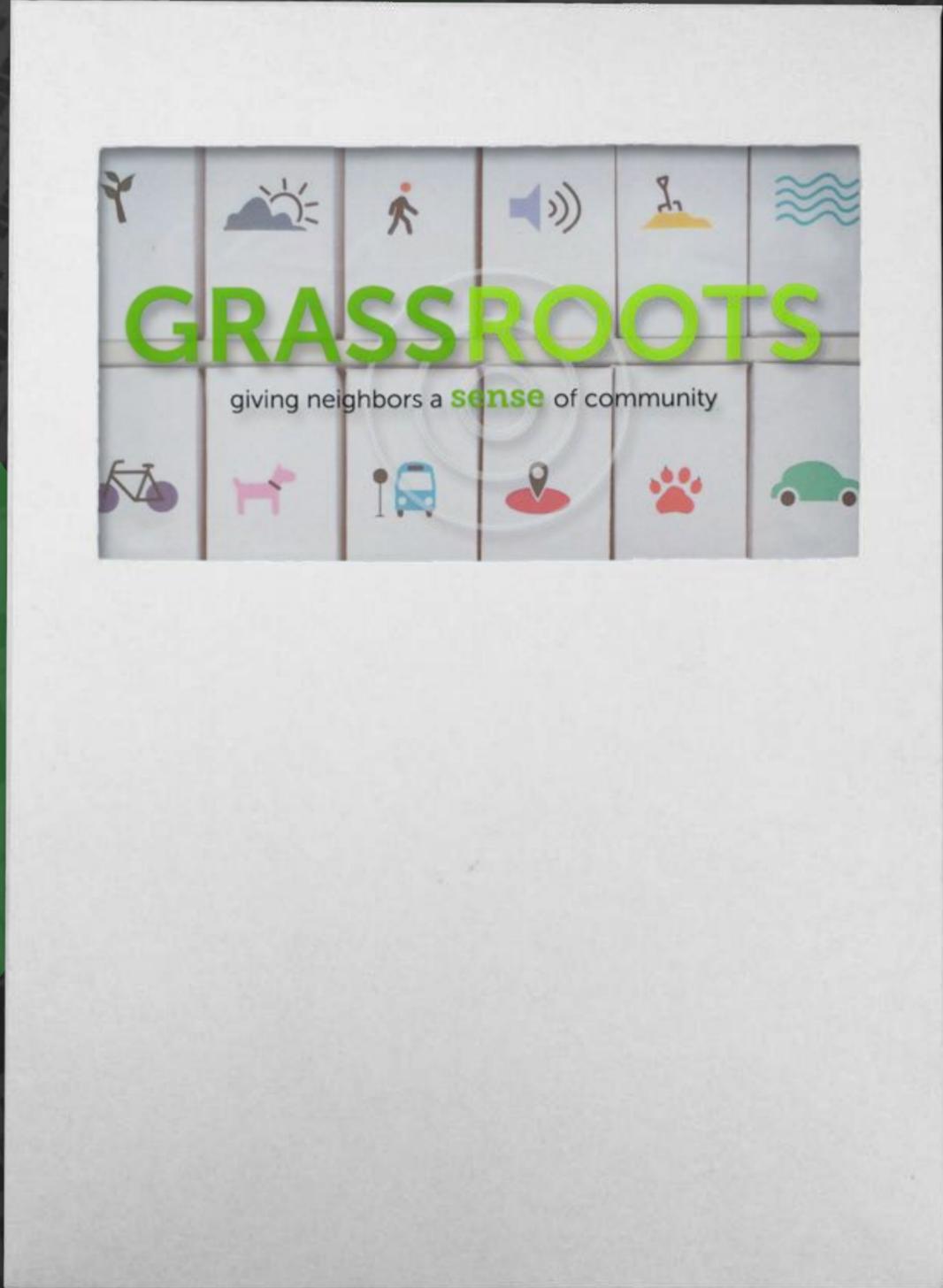
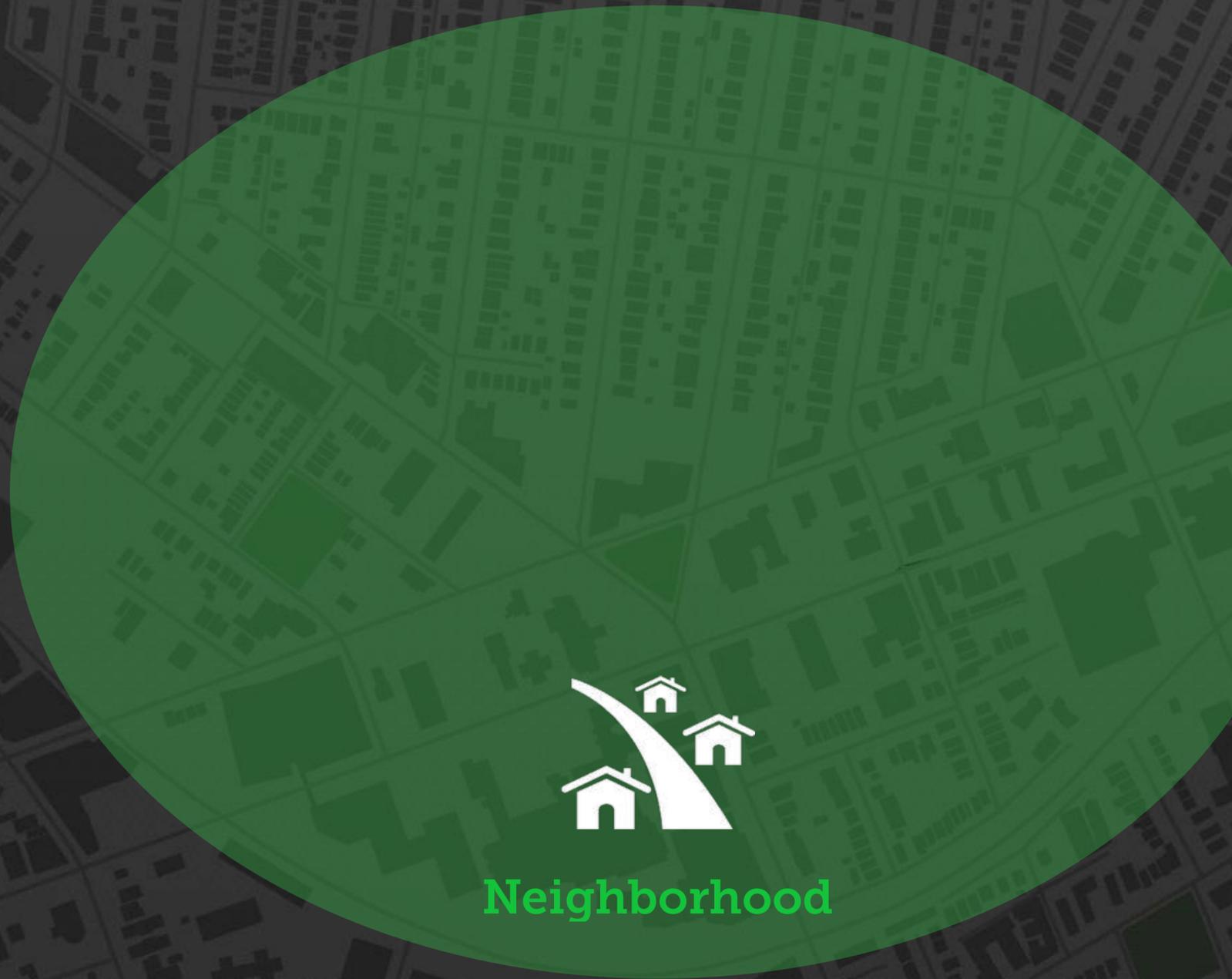
giving neighbors a **sense** of community



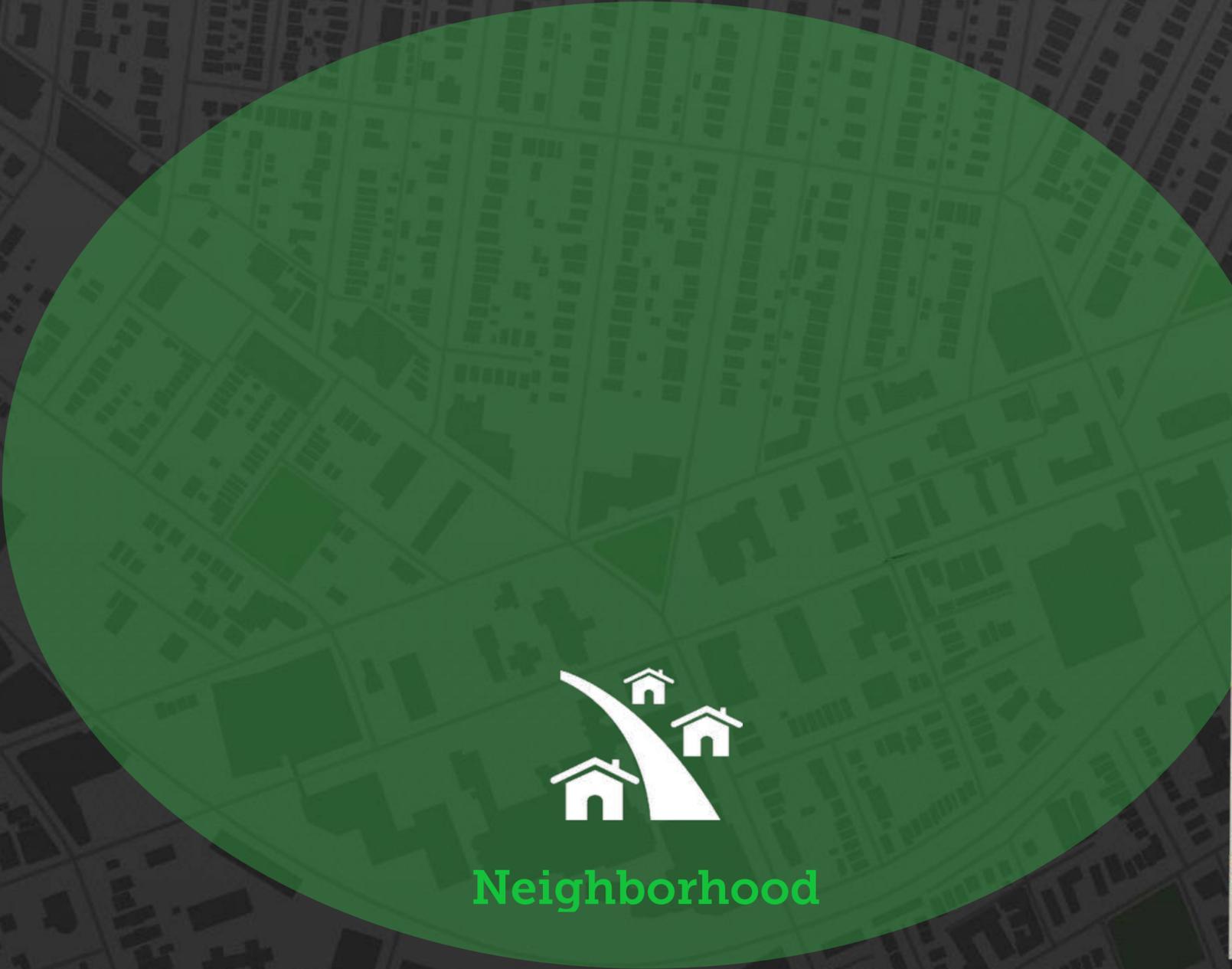
# GrassRoots Sensor Kit



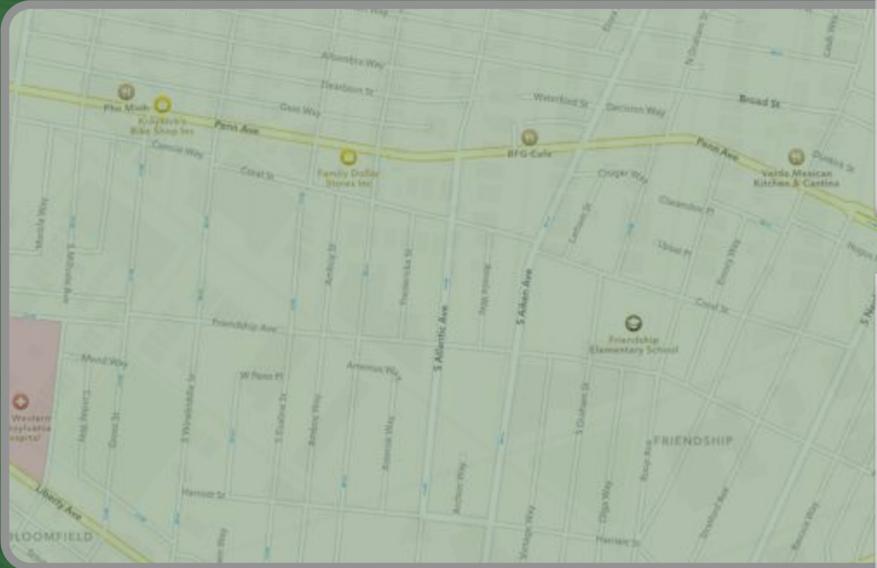
# GrassRoots Sensor Kit



# GrassRoots Sensor Kit



# GrassRoots Sensor Kit



Neighborhood

**GRASSROOTS SENSOR KIT**  
plants

Use this sticker on plants and in gardens to measure the health, growth, and type of greenery.

**GRASSROOTS SENSOR KIT**  
weather

Use this sticker anywhere to measure weather conditions and changes in the neighborhood.

**GRASSROOTS SENSOR KIT**  
pedestrians

Use this sticker anywhere to measure pedestrian and foot traffic on the street and sidewalk.

**GRASSROOTS SENSOR KIT**  
noise

Use this sticker anywhere to measure noise levels and frequency on the street or sidewalk.

**GRASSROOTS SENSOR KIT**  
soil

Use this sticker anywhere in soil to measure present nutrients or pollutants around the neighborhood.

**GRASSROOTS SENSOR KIT**  
air quality

Use this sticker anywhere to measure bicycle traffic on the street, sidewalk, and bike object data.

**GRASSROOTS SENSOR KIT**  
bicycles

Use this sticker anywhere to measure bicycle traffic on the street, sidewalk, and bike object data.

**GRASSROOTS SENSOR KIT**  
pets

Use this sticker anywhere to measure pet location, motion, and frequency in the neighborhood.

**GRASSROOTS SENSOR KIT**  
public transportation

Use this sticker anywhere to measure bus and other public transportation traffic or location.

**GRASSROOTS SENSOR KIT**  
proximity

Use this sticker anywhere to measure the proximity to another object or create a boundary.

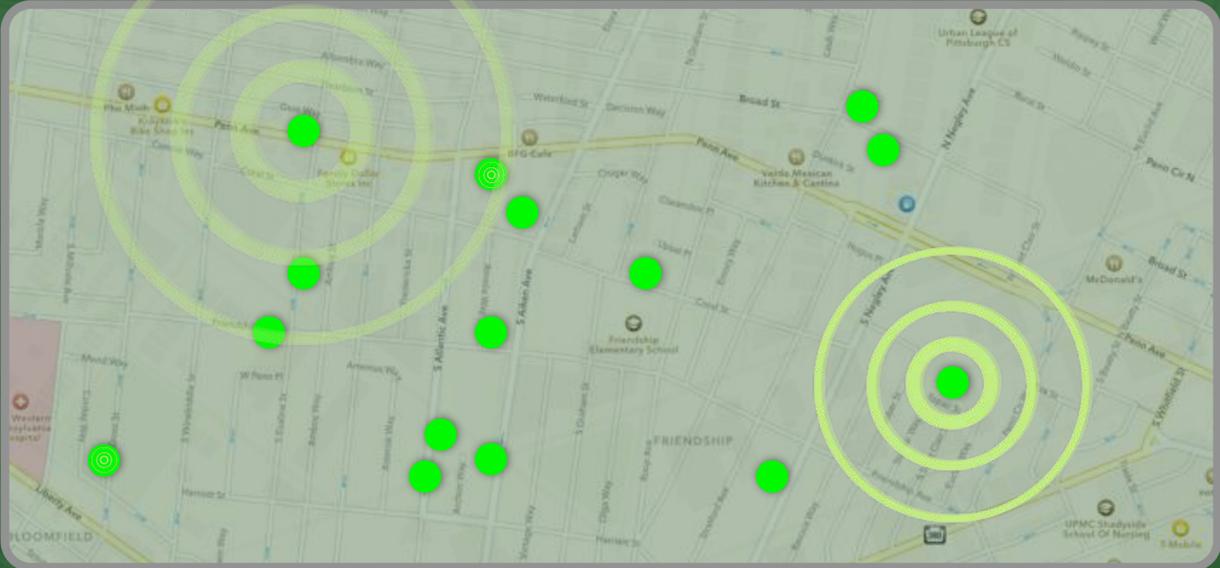
**GRASSROOTS SENSOR KIT**  
wildlife

Use this sticker anywhere to measure wild life location and frequency in the neighborhood.

**GRASSROOTS SENSOR KIT**  
vehicles

Use this sticker anywhere to measure car traffic on the street and automobile object data.

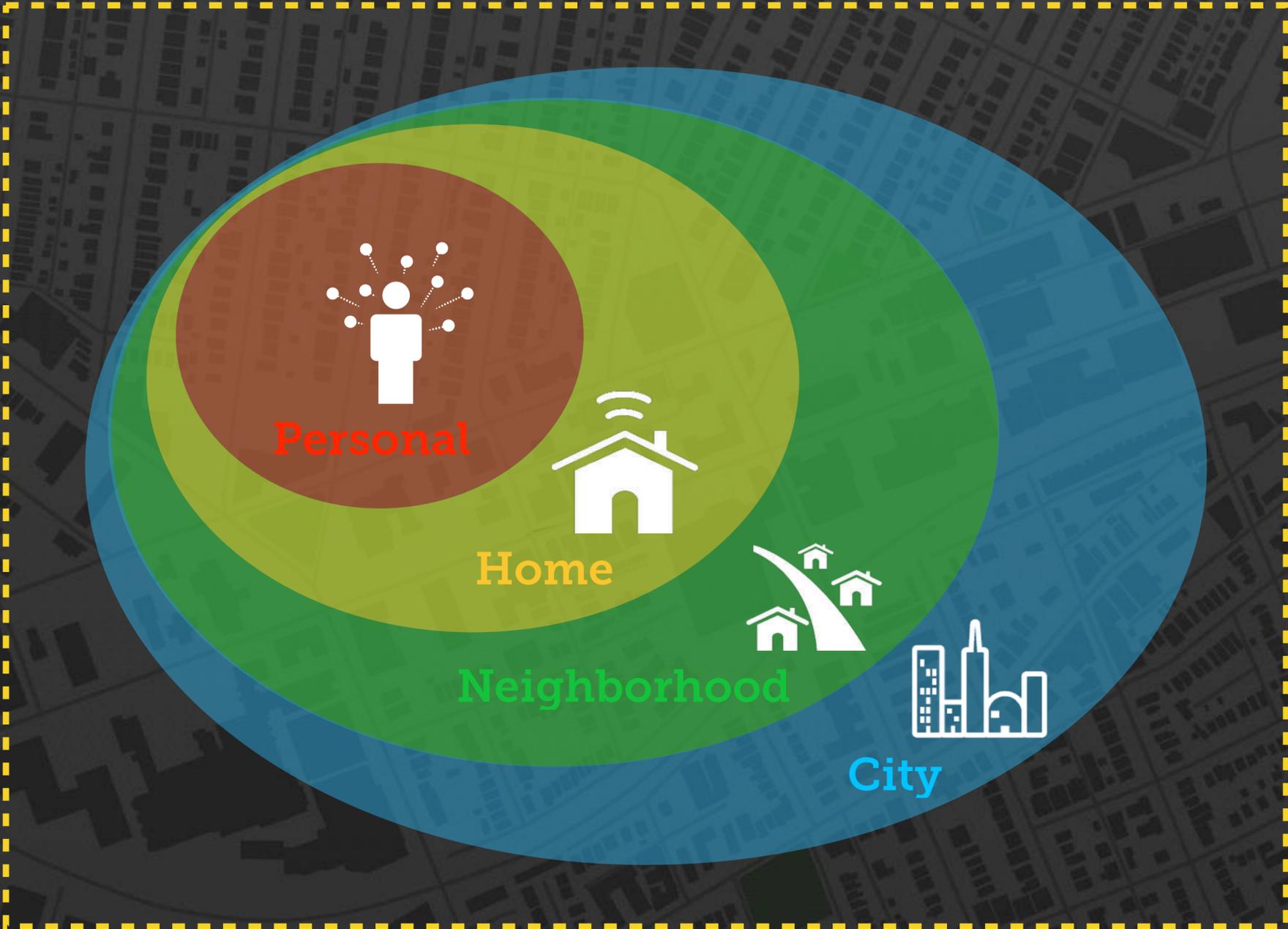
# GrassRoots Sensor Kit



Neighborhood



# GrassRoots Platform



# 1

# Gather Data



My Neighborhood



# 1

# Gather Data



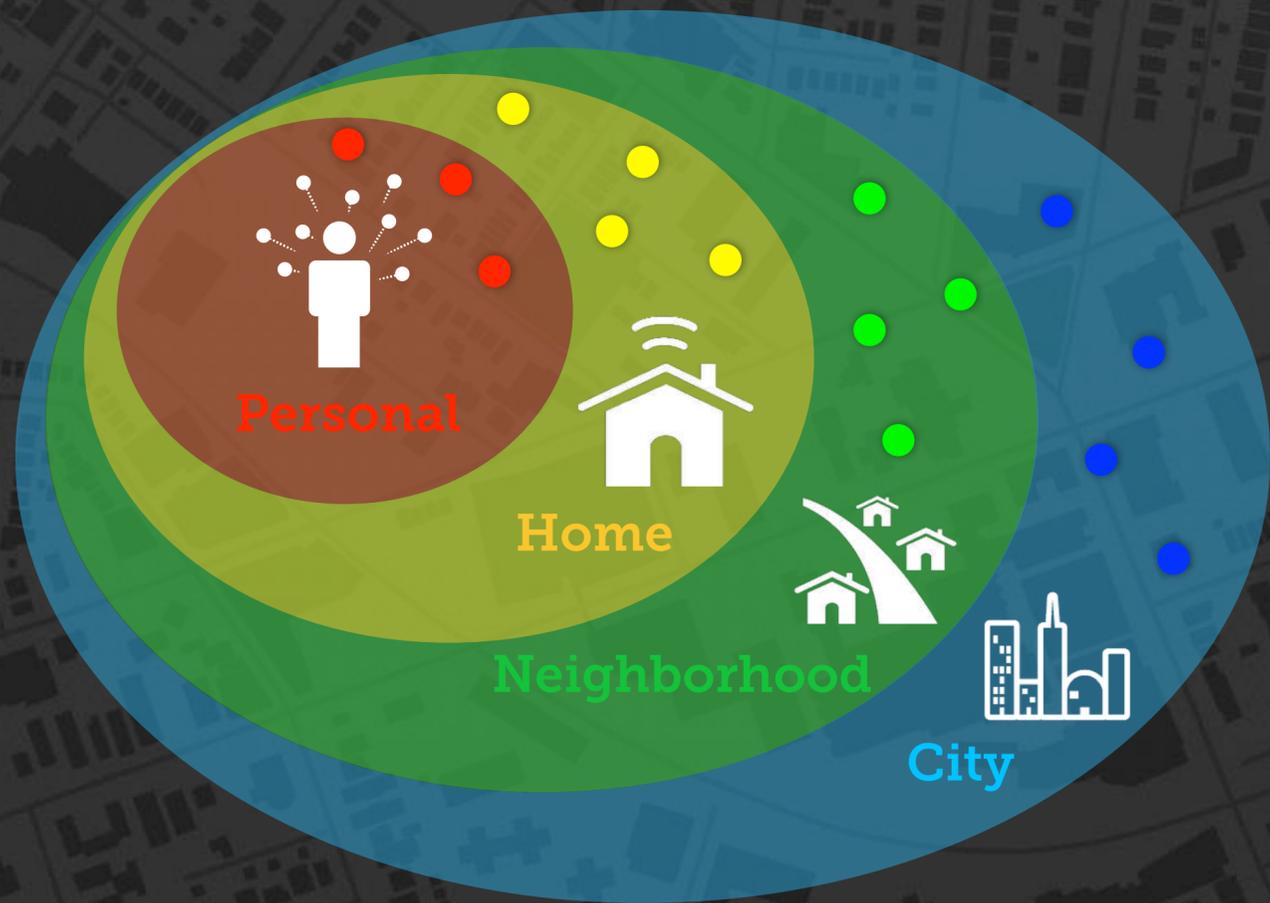
My Neighborhood



My Data



# 2 Create Recipes



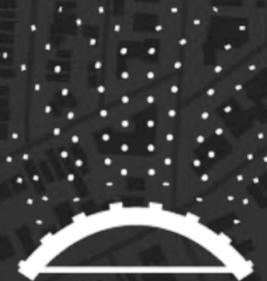
Sensor Recipes



Graphs



Alerts



Actions

# 2 Create Recipes



Recipe Maker



# 3 Share & Grow



My Recipes



# 3 Share & Grow



My Recipes



Cookbook



An aerial photograph of a city grid, showing streets and building footprints. The image is darkened with a semi-transparent grey overlay. In the center, there is white text.

**View our Video Sketch at**  
**<http://vimeo.com/101175552>**

**Improving  
neighbor  
connections**



**Melissa**

**New Neighbor  
and Mom**

**Rallying a  
neighborhood  
together**



**Rick**

**Neighborhood  
Organizer**

**City-wide  
community  
advocacy**



**Scott**

**Pittsburgh Bike  
advocate**

The background is a grayscale aerial photograph of a city street grid. Overlaid on this is a target graphic consisting of three concentric circles. The word "GRASSROOTS" is written in a large, bold, lime-green font across the center of the target.

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# Carnegie Mellon University

School of Design 2014

## Team Members

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## Advisors

Peter Scupelli

Bruce Hanington

## Image Credits

Noun Project: Sprinkler Icon designed by Amelia Wattenberger

Flickr: Tony Fischer (tonythemisfit), Jon Parise (jparise), and Pete (doviende)