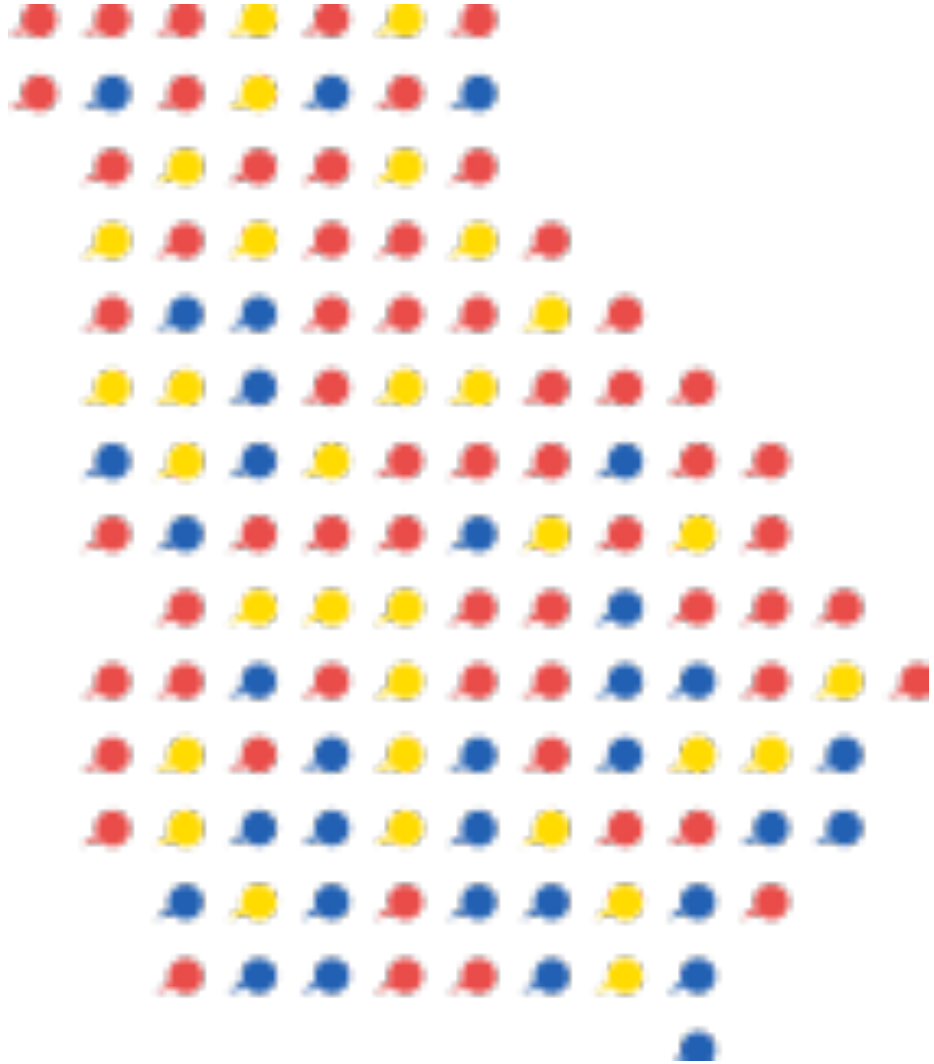
Partnership for Inclusive Innovation



GPA Convention Fall 2022

pin partnership for inclusive innovation

pingeorgia.org

Our Mission

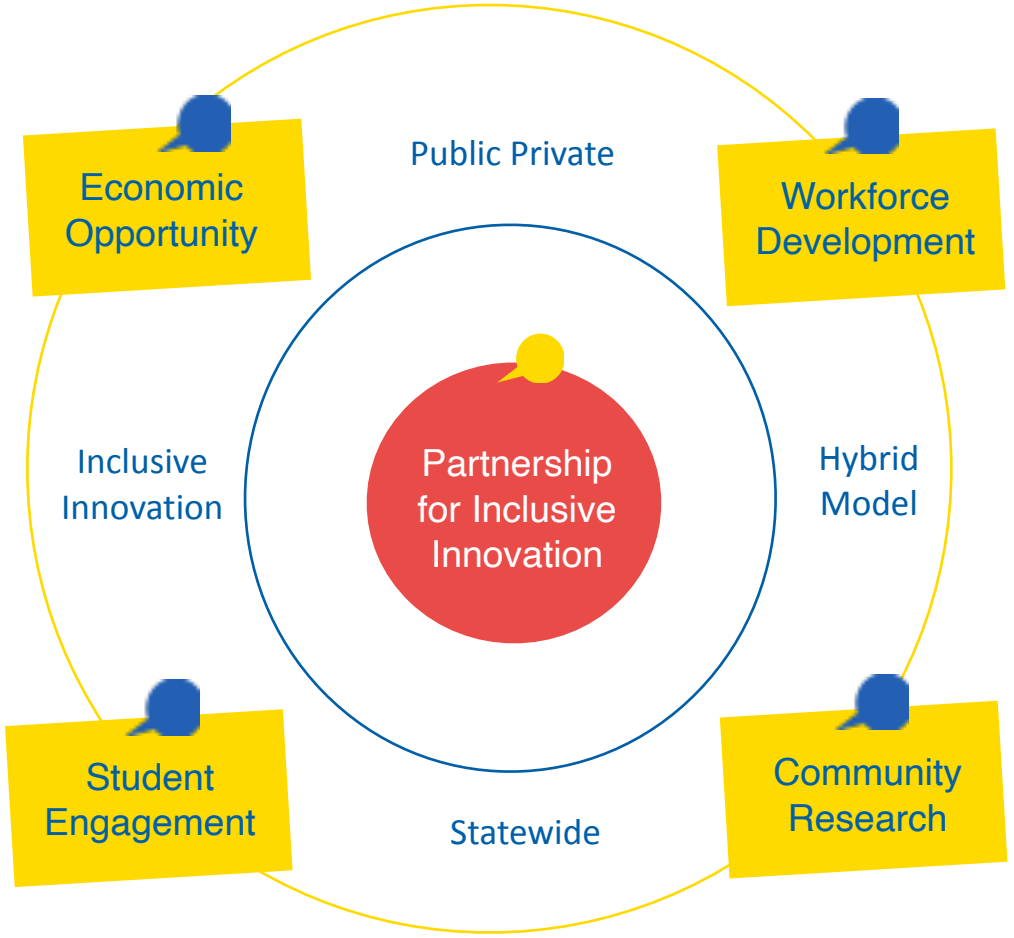
To advance established and emerging innovators for a stronger Georgia

- Promote shared innovations that drive inclusion and growth
- Advance existing entrepreneurs while identifying and helping new innovators succeed
- Establish Georgia as the East Coast Tech Capital
- Find and unlock the promise of innovators who have traditionally been shut out
- Activate potential

Our Approach

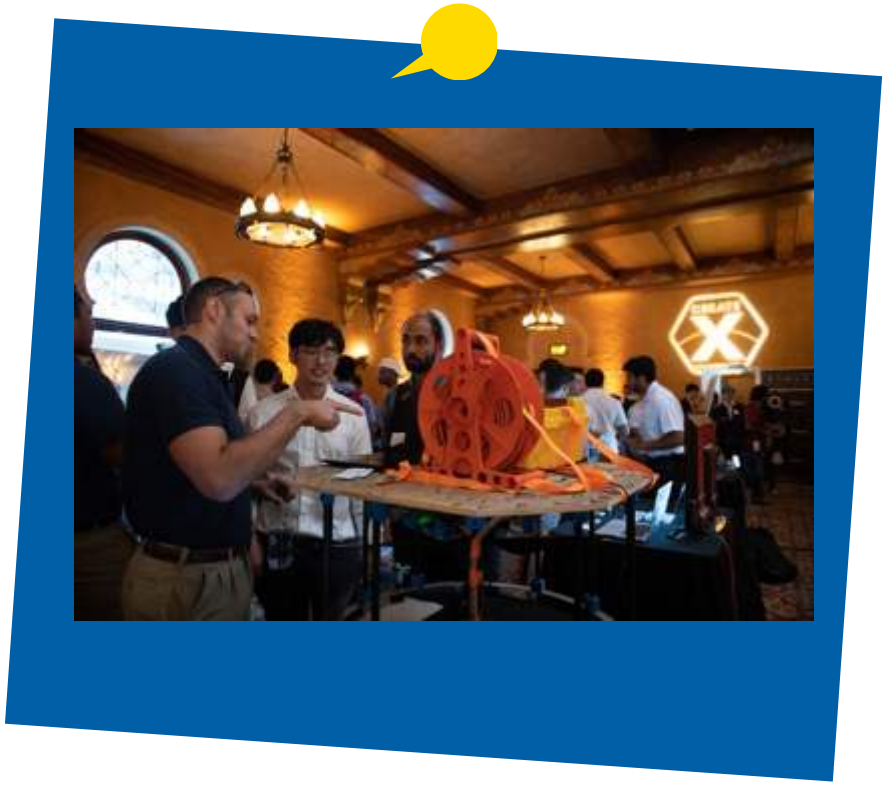
The Partnership fosters a statewide connected innovation ecosystem for all. A number of organizations overlap with some of the aspects of our work. Few organizations, however, shares all four of the hallmarks we use to identify, share and accelerate innovations that spur transformational growth and economic and community success:

- A public/private coalition
- Statewide activity and impact throughout Georgia
- Defining and advancing inclusive innovation across geographic, racial, gender and socio-economic equity
- A hybrid model that combines grantmaking and hands-on program operation



Workforce Development

Engages the current and developing workforce to build meaningful careers, create systems of economic justice and mobility, build pipelines for talent to boost connectivity and drive innovation throughout the state and its various sectors.



Workforce for Tomorrow Fellowship

Connect, grown, transcend

The rotational fellowship program aims to cultivate next-generation leaders with multi-industry transferable skills that deftly navigate public/private sectors, and to build public-private partnerships in key growth areas for social impact.

Student Engagement

Develops the next generation leaders across the state for public service, innovation and technology through programming, experiential learning, and mentorship for a more inclusive Georgia

2022 Smart Community Corps Cohort

140

Applications Received Representing **17** GA Universities

33

Interns Chosen Representing **11** GA Universities

17+

Different Studies/Majors Represented in Cohort

16

Projects/Communities

Special Thanks to Microsoft and Gulfstream

Economic Opportunity

Democratizes and amplifies proven innovation work for scale and expansion that improve socio-economic outcomes.

7

Funded projects representing themes around (inclusive entrepreneurship, agriculture, healthcare, and community impact)

71

Access to capital opportunities created for entrepreneurs (Banks, CDFI's, Investors, etc.)

84%

Of Economic Opportunity funded projects are women co-founded/led

9

Economic development regions served by project sites

$3.7M

of additional investments/ funding secured by Innovate for All projects to-date.

67%

Of Economic Opportunity funded projects are minority co-founded/led

Community Research

Multi-disciplinary and multi-university applied work that advances research and empowers the community on issues ranging from transportation to housing

30+

Community Engagement or Key Stakeholder Meetings Facilitated by Projects in 2020 - 2021

20

Communities Served by Georgia Smart Program since 2018.

9

Georgia Universities Represented in Georgia Smart and Alumni Projects

170+

Technologies Activated in Georgia Smart Communities Since 2018 including AoT/IoT, Sea-Level Sensors, and Traffic Sensors.

Smart Communities

Taming Traffic:
Award winning project in **Valdosta** enhances traffic management and safety, while **Gwinnett County** advances a master plan to prepare for pre-emption.

Harnessing Housing Data:
Civic Data Science projects in **Savannah and Albany** help cities assess, maintain, and improve local neighborhoods.

Smart Resilience:
Georgia Smart's 5th cohort will be feature projects dedicated to addressing natural disasters, sustainability and energy needs.

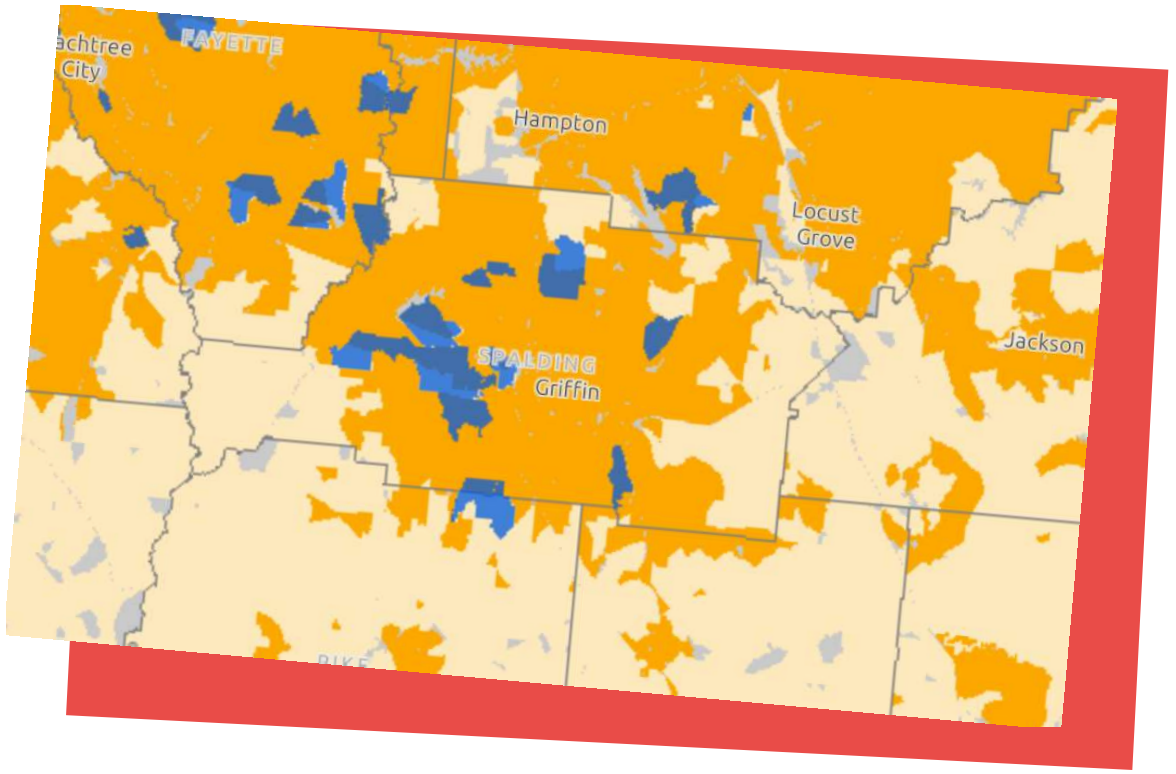
Safer Sidewalks:
Examining sidewalk data allows **Clayton County** to plan inclusion for all pedestrians.

Connecting Communities:
Advancing innovative connectivity solutions in **Pike County, Spalding County, Concord, and Woodbury**.

Innovative Insight:
License plate readers send data into a digital twin in **Warner Robins** to allow law enforcement to plan for public safety.


Spalding
COUNTY

STARTING WITH THE CHALLENGE



- Imagine if you will…
  - Internet Access ➔ 93% of your community
  - Population ➔ 67,909
  - Average income ➔ $48,970

- So, what's the problem?
  - *How do we economically meet the needs of those within our community who are unservered…AND…how do we reduce the cost of service for those who are underserved*

It’s attractive to solve problems with technology…but how do you identify the ‘right’ solution?

WORKING WITH THE RIGHT TEAM TO FIND THE RIGHT SOLUTION

Collin Sims

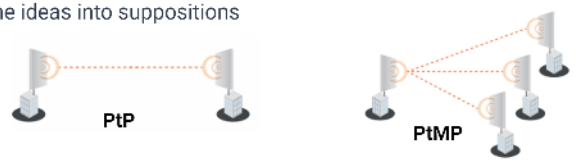
David Moraels

Project Purpose

- The main objective of the Spalding County Project is to make wireless broadband available to the community at low cost utilizing existing county assets and locations.
- Many areas that hold the lowest population densities in Spalding County remain neglected in equitable internet access
  - The key areas are the City of Orchard Hill and the western region of Spalding County

Mediums of Research

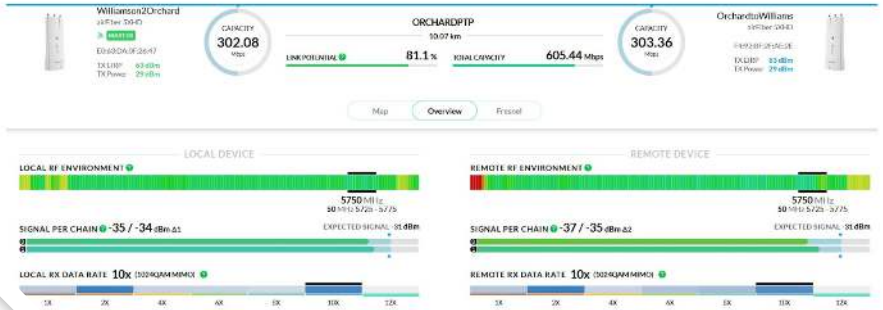
- **Ubiquiti**: American technology company that manufactures and sells wireless data communication and wired products for enterprises and homes
  - Used to 3D model PtP and PtMP devices to different house locations and radio towers
  *** Point-to-Point and Point-to-MultiPoint devices allow wireless communication at different locations**
- Online Articles, Research Papers, Graphs, Online Discussions though Ubiquiti, Device Videos, were used to combine ideas into suppositions



Experiment…Learn…Report

Conclusion

- Ubiquiti products have been installed at two tower locations currently
- Following the end of our internship this summer, we are hopeful that Spalding County can have Ubiquiti products installed at each of the tower locations where they are all connected and working together.



PtP link between 2 towers

One in three Macon-Bibb County households have no access to broadband internet.

One in five households have no access to a computer or smart device.

-US Census Bureau 2013-2017

How can we improve community participation in neighborhoods that do not have access to the information and services that support them?

https://pattern-witness-e7b.notion.site/Smart-Neighborhoods-MBC-Phase-II-a517aa6f8a6a4bddb0982ee8ac072413

SmartNeighborhoodsMBC brings City Hall to Neighborhoods (2019- ongoing)

SmartNeighborhoodsMBC promotes equity in our economically stressed neighborhoods by placing **Smart Kiosks** in strategic locations. These kiosks are envisioned as huge smartphones that will provide access to critical information and services, to promote community empowerment in underserved areas.

Project & Research Objectives:

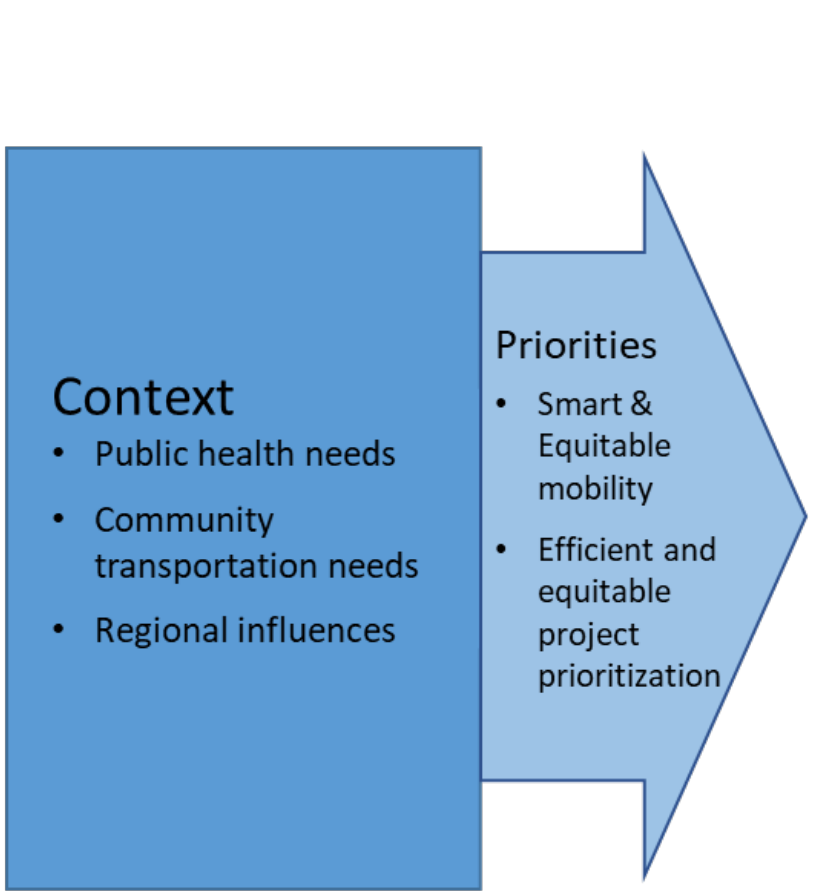
Stakeholder Engagement

- Determine community priorities for information delivery
- Determine community priorities for kiosk features
- Establish community partnerships for project implementation

1. **Identify vulnerable neighborhoods & potential kiosk locations**
2. **Research technology options and identify feasible options**
3. **Develop apps based on community priorities**
4. **Establish analytical strategies for community equity**

Clayton County (2020-2021)

Smart Pedestrian Planning: Integrating Community Needs into Data Driven Decisions



Inputs

- GA Smart Grant Funding
- Research Partnerships
- Stakeholder Engagement
- Community Collaborations

Outputs

Data Collection
- Surveys
- Sidewalk inventory
- Literature reviews-1) smart pedestrian planning 2) smart asset management 3) smart health communities

Database Development
- Smart Asset Management System
- Community metrics and Indices

Stakeholder Engagement
- focus groups, workshops, charettes

Pedestrian project prioritization methodology
- Data Analysis
- Decision-support tool development

Smart Pedestrian Plan
- Smart pedestrian corridor typologies
- Identification of appropriate smart technologies responsive to community context

Outcomes

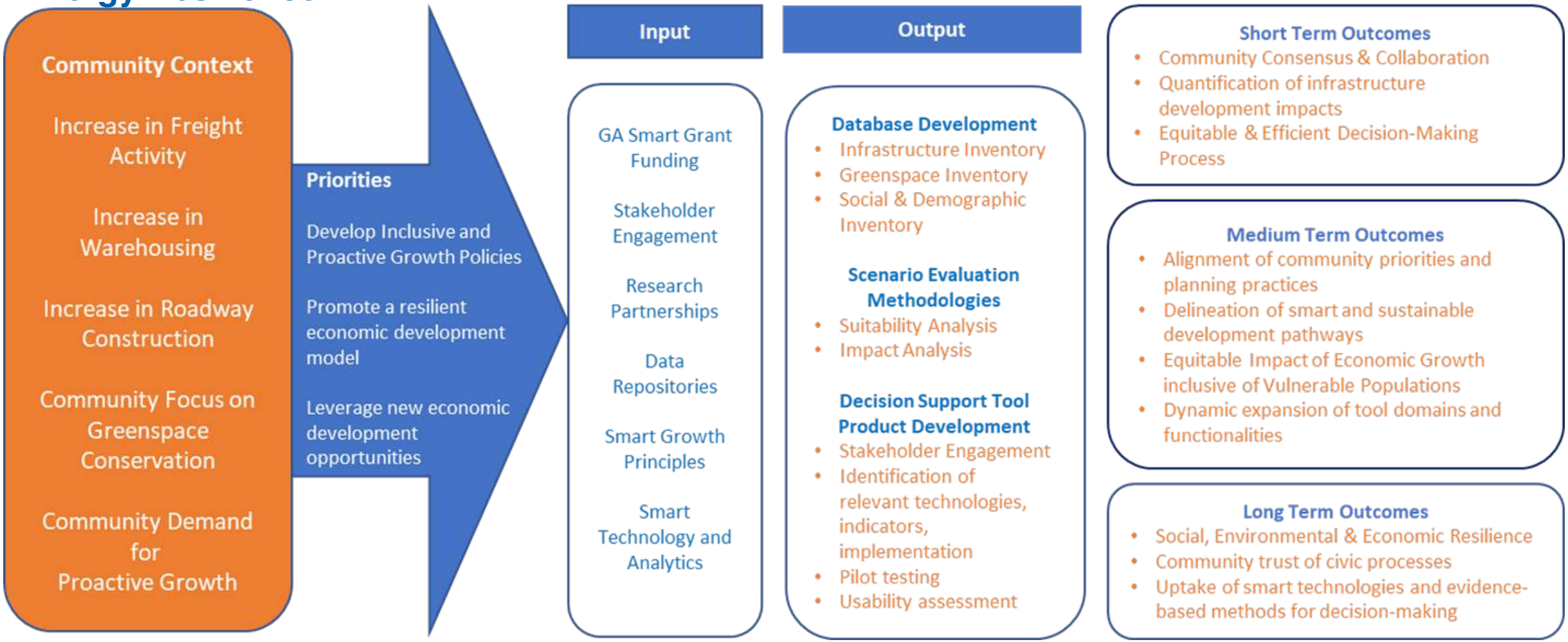
SHORT TERM
- Equitable and Efficient Decision-making
- Community Consensus
- Improved Community Awareness
- Stronger community collaborations

MEDIUM TERM
- Increased Physical activity
- Increased safety
- Increased accessibility
- Increased pedestrian mobility
- Increased economic activity

LONG TERM
- Decreased chronic disease rates
- Decreased obesity
- Increased pedestrian safety
- Improved infrastructure management
- Improved project implementation

Henry County (2022-2023)

Manifesting Proactive Smart Growth: Integrating Potential for Social, Environmental and Energy Resilience



City of Woodstock

Smart Cities Traffic Project

pin

Team Introduction

Noah Little

Current: Masters of Science in Analytics at Georgia Tech

Previous: Analyst for SaaS and Manufacturing industries

David Moss

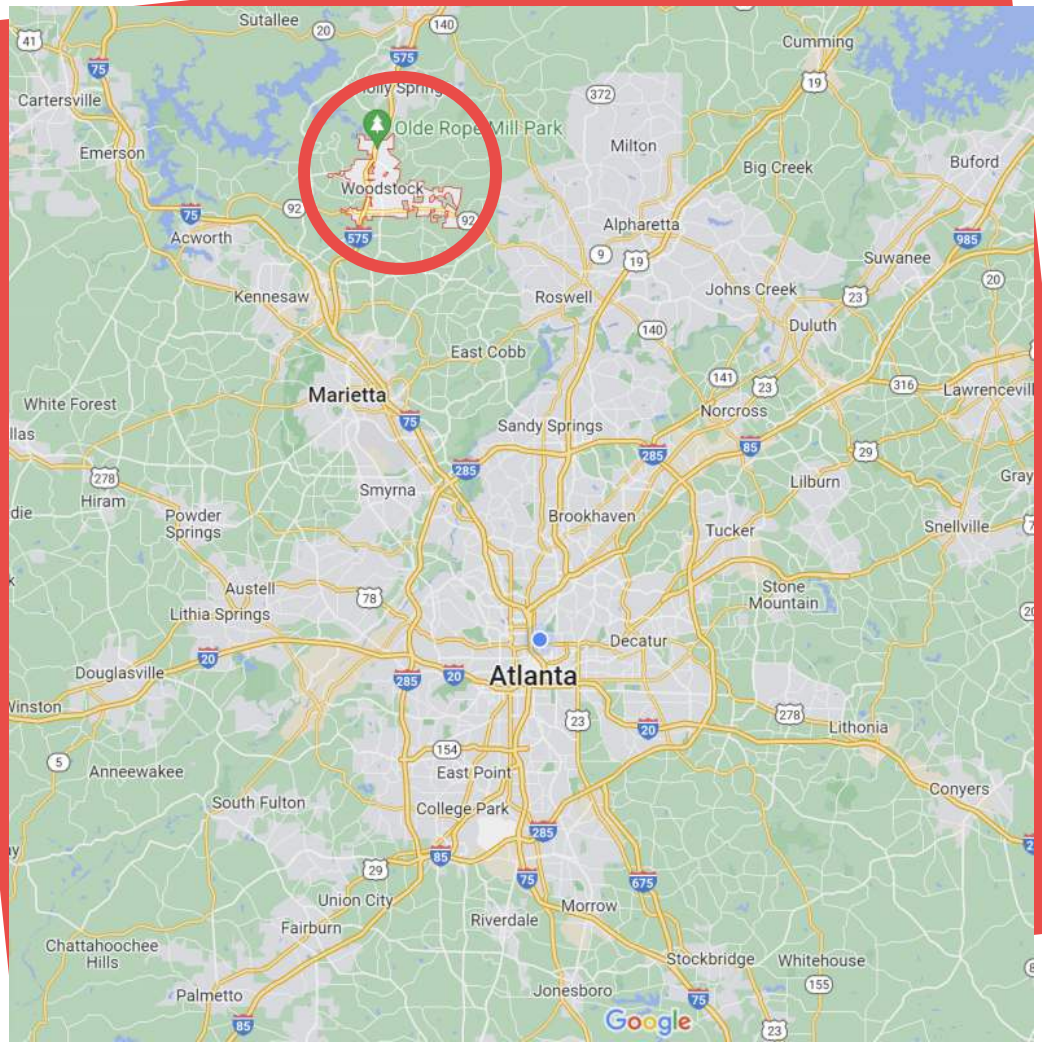
Current: Dual masters in City Planning and GIST at Georgia Tech

Previous: Consultant, then Operations at transportation technology firm

Project Information

Woodstock is a small city of ~30k people in Cherokee County, to the northwest of downtown Atlanta. Investments in **revitalizing the historic downtown area has led to a surge of new people moving to the area**, creating unprecedented congestion.

This project focused on **root-causing why congestion occurs and determining which solutions should be implemented to alleviate it** while maintaining flexibility, given Woodstock's future growth.



Plan of Action

Research and Interviews

First-hand research into the causes of Woodstock's congestion problems

Review relevant case study literature, from both company marketing materials and academic studies

Interview variety of subject matter experts across technical and operational domains

Data Tooling and Analysis

Inventory of current data collection and analysis capabilities

Exploration of possible complementary data solutions available

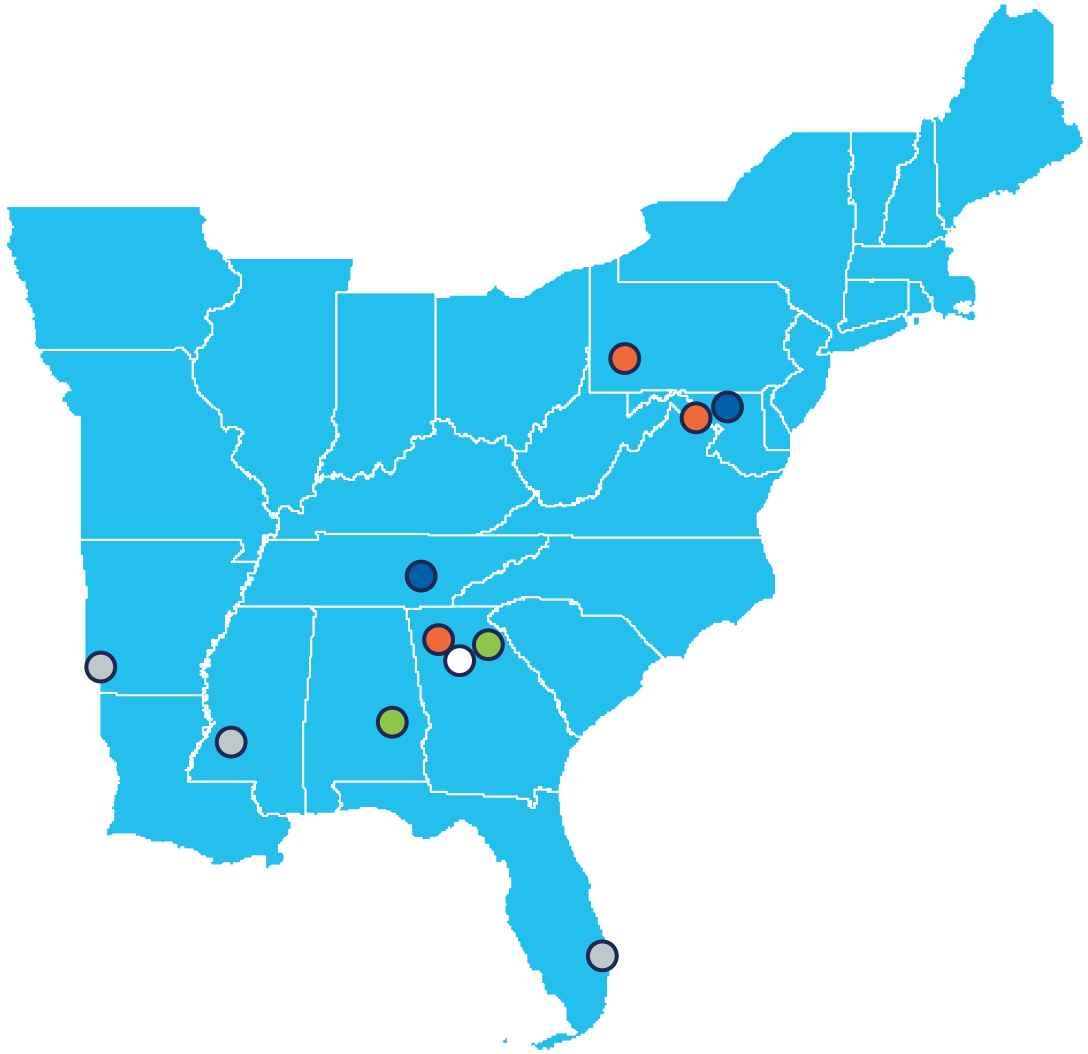
Evaluate best practices for measuring congestion

Sample analysis of key downtown corridor to validate previous findings

Research and Interviews

Conducted **two in-person ground truthing sessions** to root-cause Woodstock's congestion issues

Also conducted **four expert interviews**, **two technical interviews**, **two local government interviews**, and **analyzed six more case studies** provided by leading experts and companies



Not pictured: Utah, Michigan, and Seattle

Data Tooling and Analysis

Current Inventory

CUBIC | GRIDSMART

Placer.ai

Liveable Cities

ATSPM

Variety of data sources currently available, but difficulties accessing and interpreting the data

New Datasets

RITIS

INRIX

here

THE EASTERN TRANSPORTATION COALITION

Access to new, high-quality solutions possible through ARC participation in TET Coalition

Congestion Measures

Literature review yielded list of 5 recommended congestion measures to track going forward

Key Problems

Heavy traffic volumes along *both* North-South and East-West corridors of main intersection

Pass-through commuter traffic *and* destination traffic **use same travel corridors**

Data from GRIDSMART camera arrays is **siloed and difficult to access** for analyses

Complications: Parallel railroad tracks, too many unsignalized pedestrian crossings, an abundance of on-street parking, and roads too narrow for emergency vehicles

Final Recommendations

Priorities

Short-Term

- Manually Re-Time Signals
- Store and Analyze Current Data

Medium-Term

- Implement Traffic Responsive Signals
- Expand GRIDSMART array

Other

- Optimize School Bus Routes
- Consolidate Pedestrian Crossings
- Preempt Emergency Vehicles

Thank You

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