Urban Mobility

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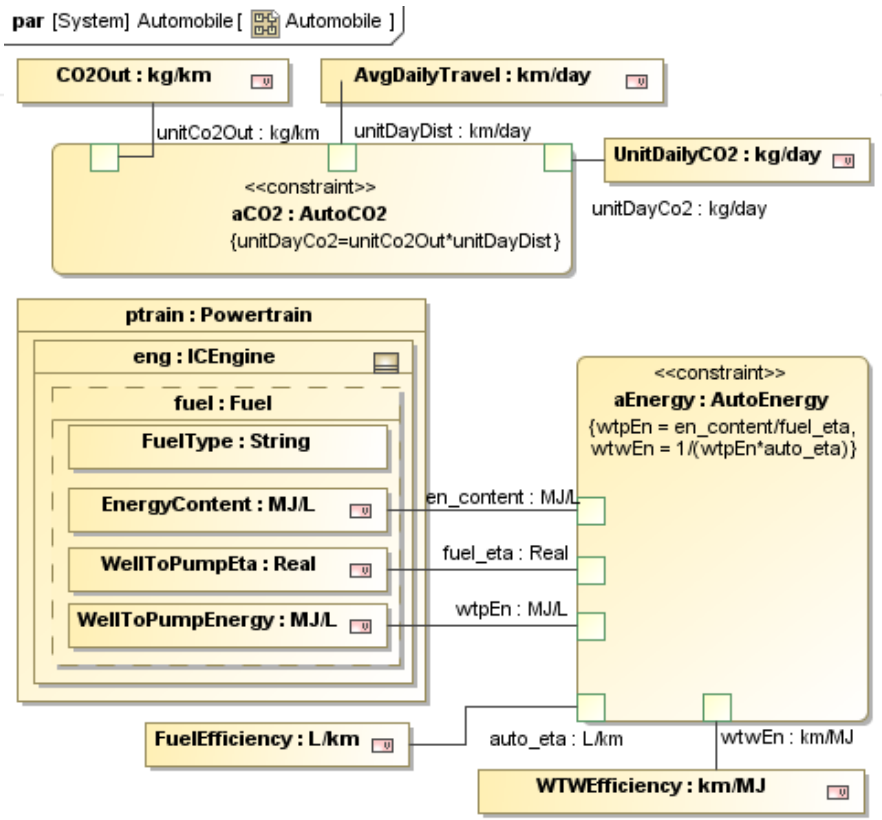
What are our objectives?

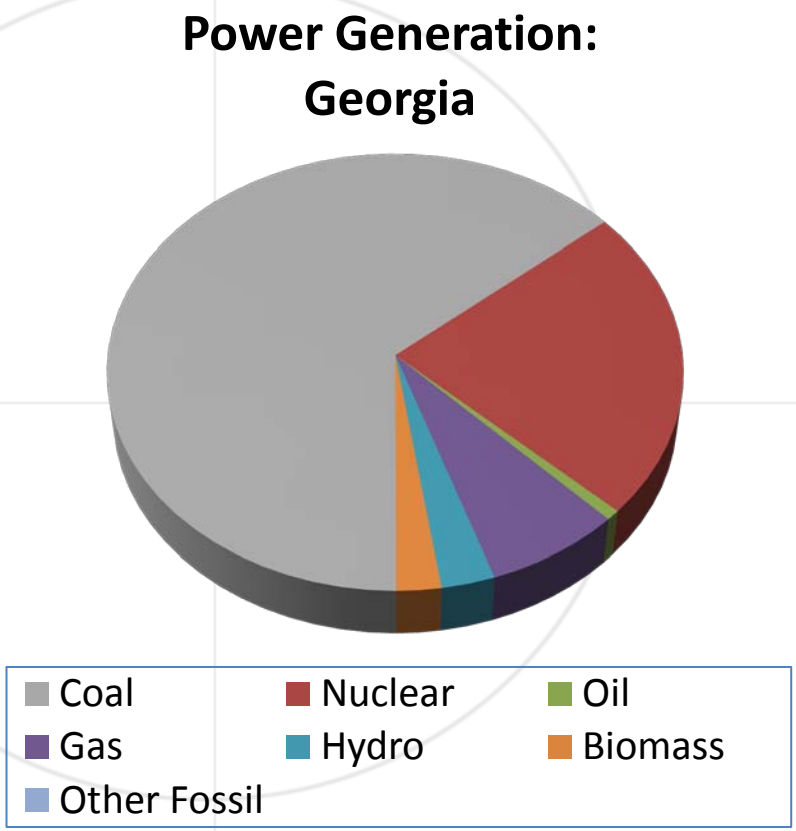
- Identify technical options to improve urban mobility
  - Designing hardware as well as software solutions
- Assess impact (financial, environmental and social benefits/costs)
  - Use existing and new tools and metrics
- Design an information exchange framework
  - Provide a basis for development of information applications
- Pilot implementations around Georgia Tech
  - Midtown, GA Tech campus, and Atlantic Station
- Create a research thrust around ‘sustainable mobility’
  - Working with city, transit, private operators

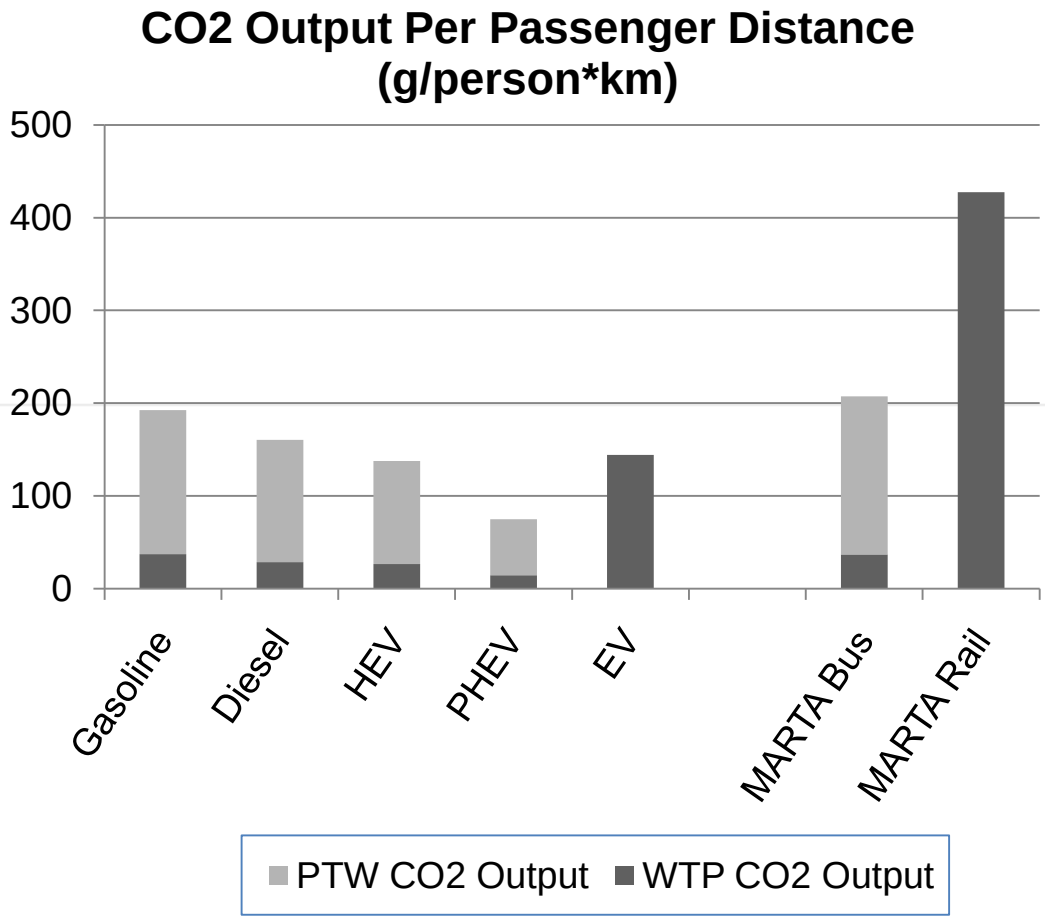
Assessing Impact

- Modeling sustainability of complex systems
  - How do regional variations affect environmental impact of a transportation network?
  - What are the most important factors?
- Creating an evaluation platform
  - Scalability , integration, and reuse are essential



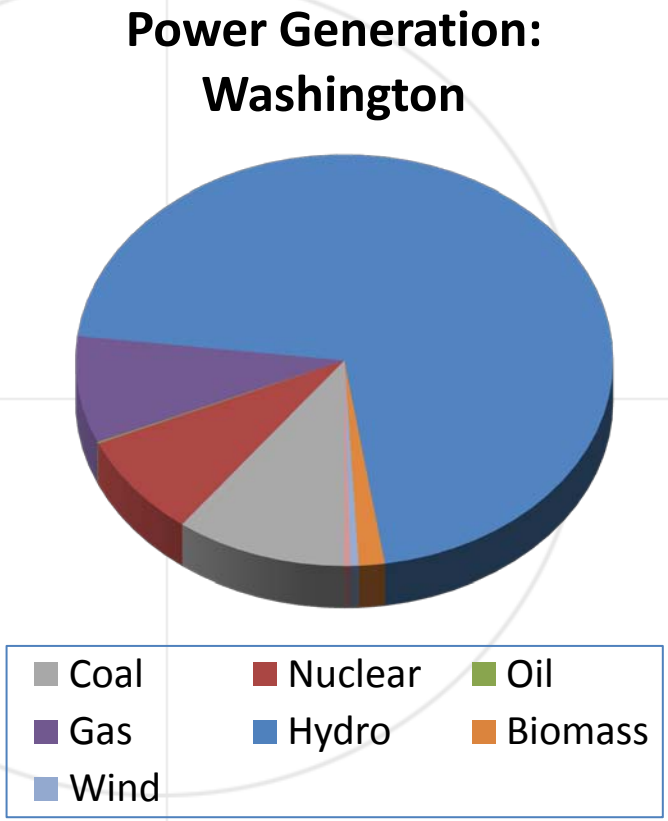
Modeling Results: Atlanta

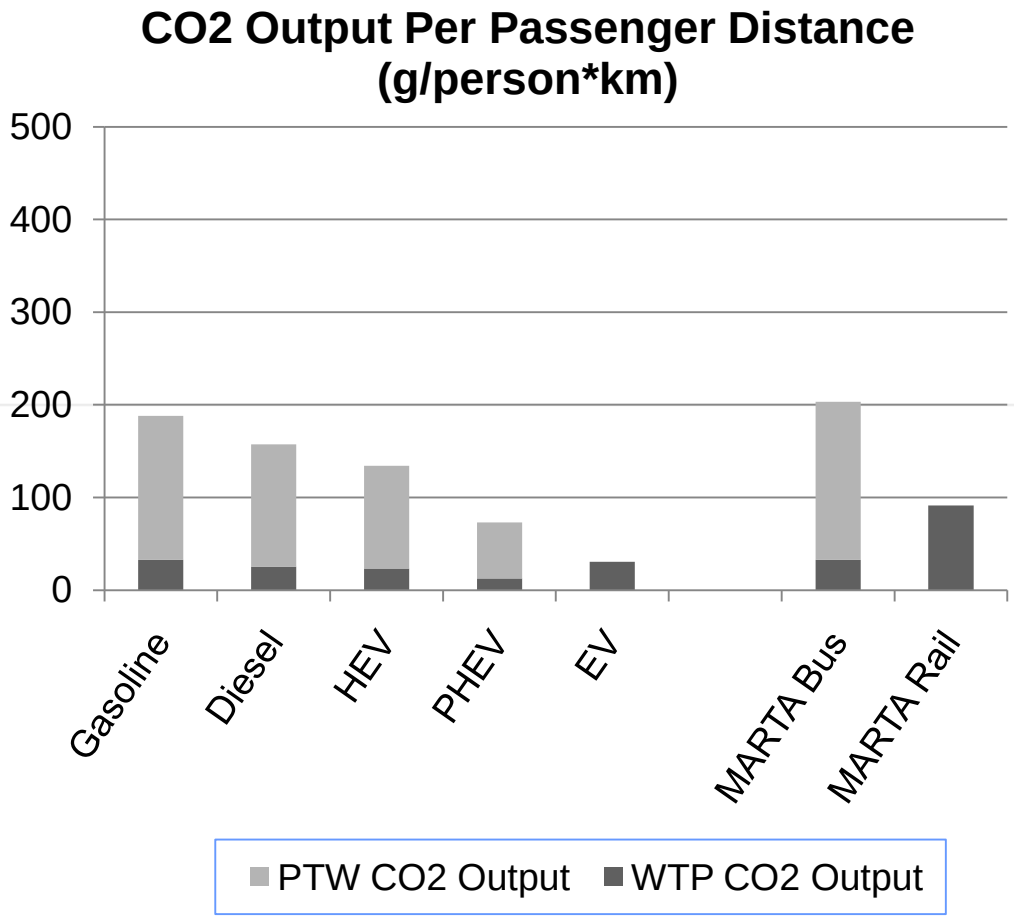




- Modal efficiency determined by many variables

Modeling Results: Atlanta

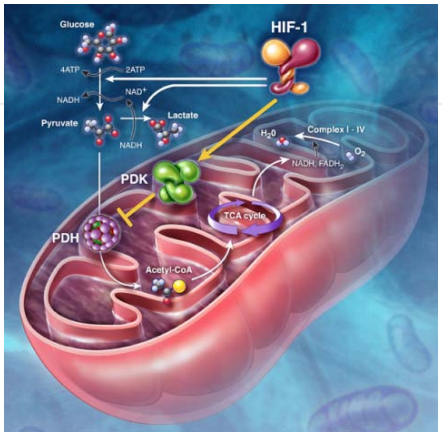


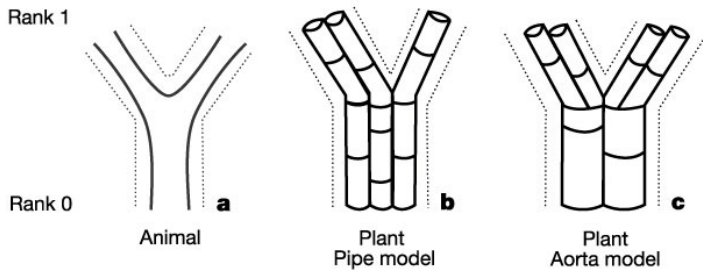


- Sensitivity analysis has widespread planning and policy implications

Applying New Concepts: Bio-inspiration

- Network scaling and routing
- Signaling and self-organization
- Energy limits and metabolic patterns
- Structural food webs





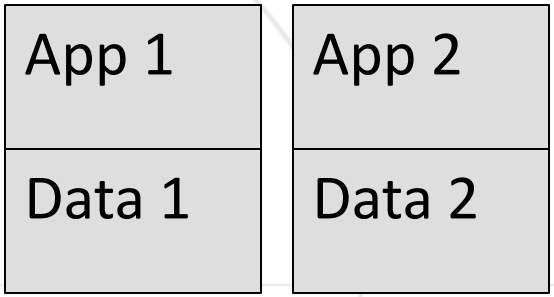
RideVIA

- RideVIA is an intelligent transportation system we are developing using a common information framework.
- Applications we are developing based on RideVIA:
  - Real-time user information systems
  - Fleet Management
    - Both with Multi-modal capabilities

Why do it?

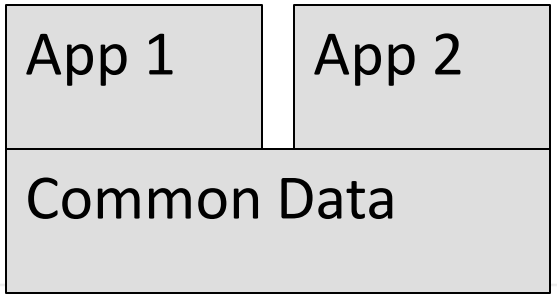
Current

- Vertical
- Proprietary

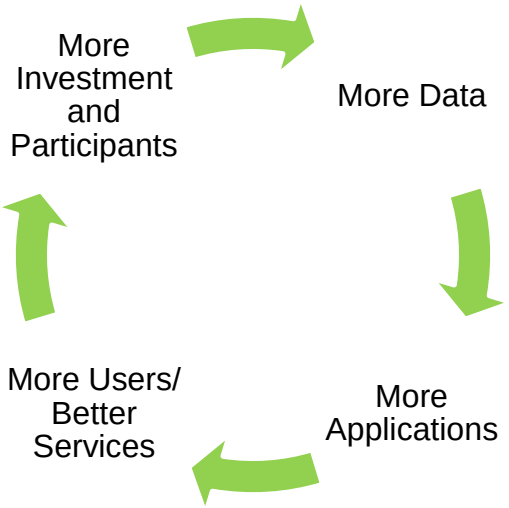


Proposed

- Horizontal
- Open standards



- Intelligent Systems will be easier to develop
- Multi-modal applications easier.
- Reinforcing Cycle - benefits increase as more stakeholders take part



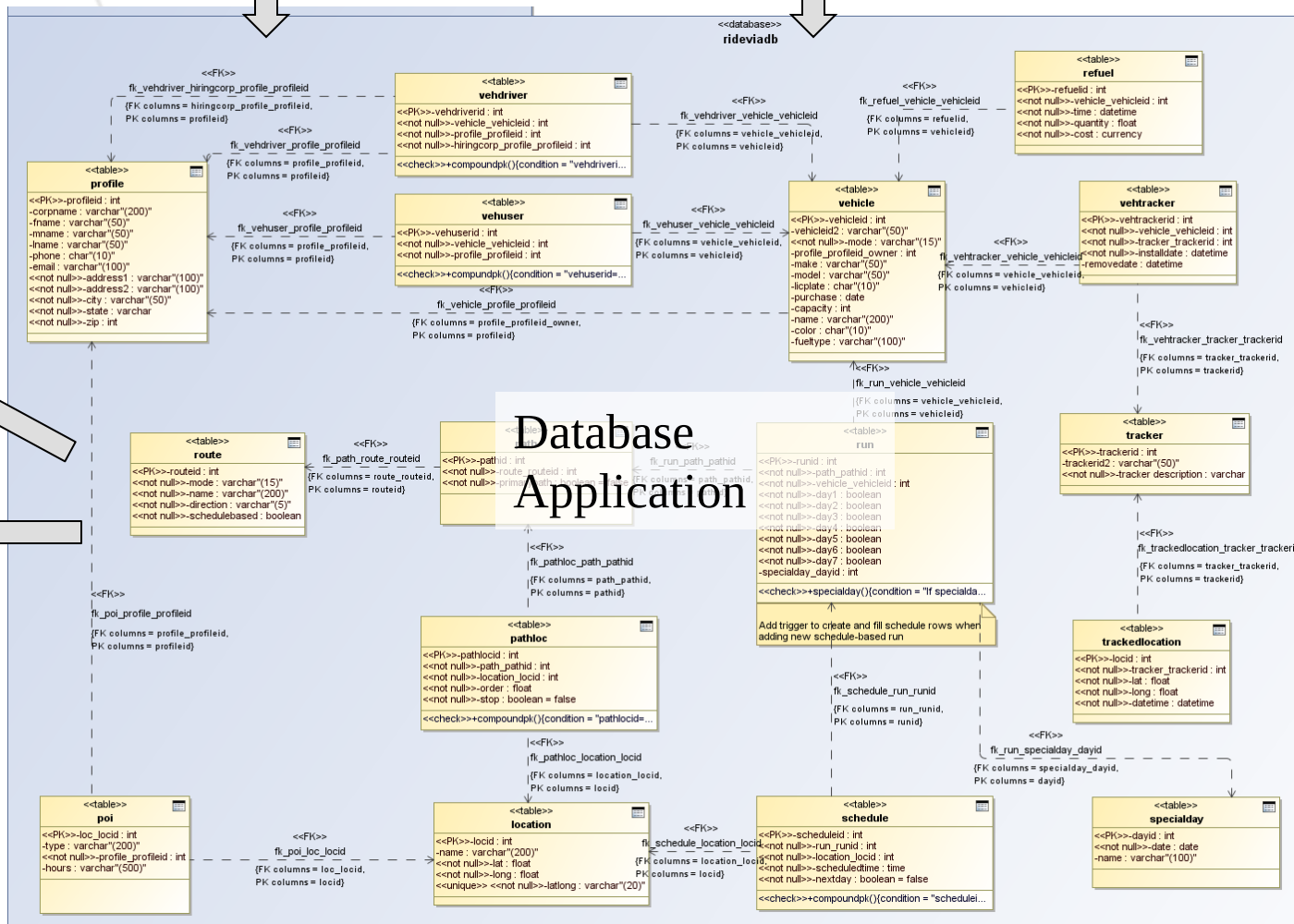
RideVIA Elements

GPS Trackers

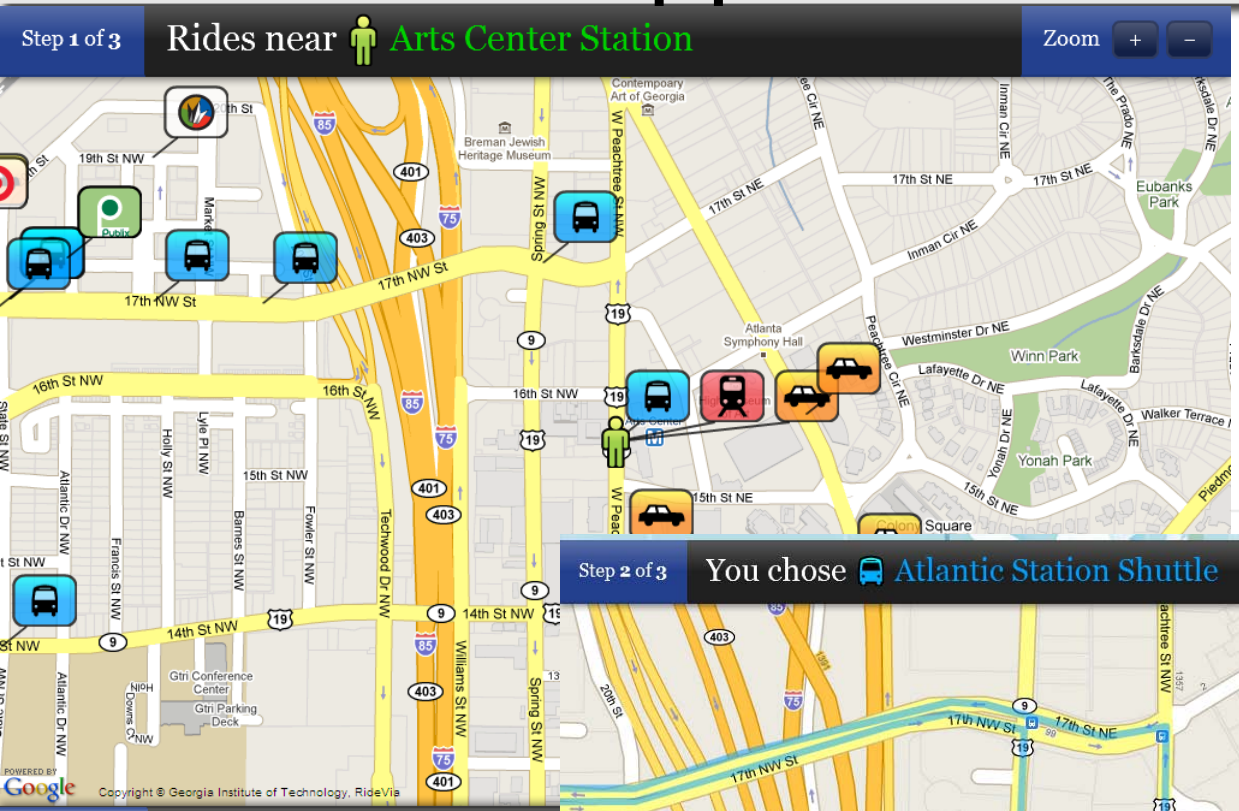
Existing Data

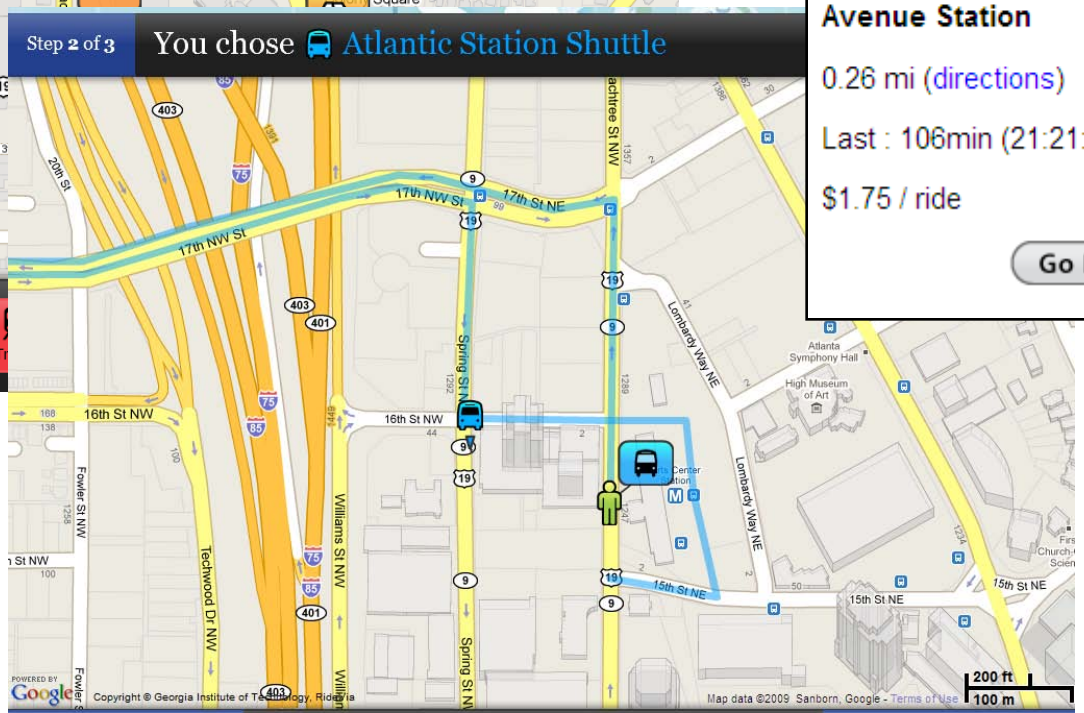
Multiple Interfaces

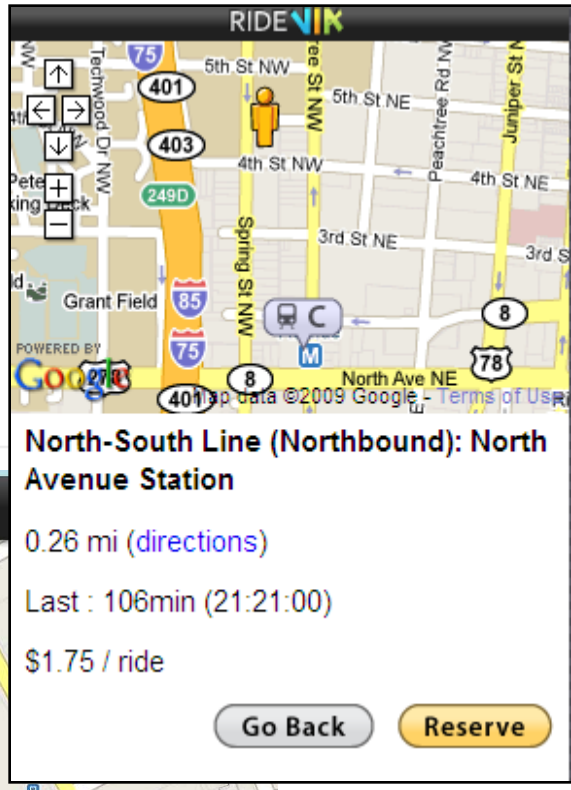
Database Application



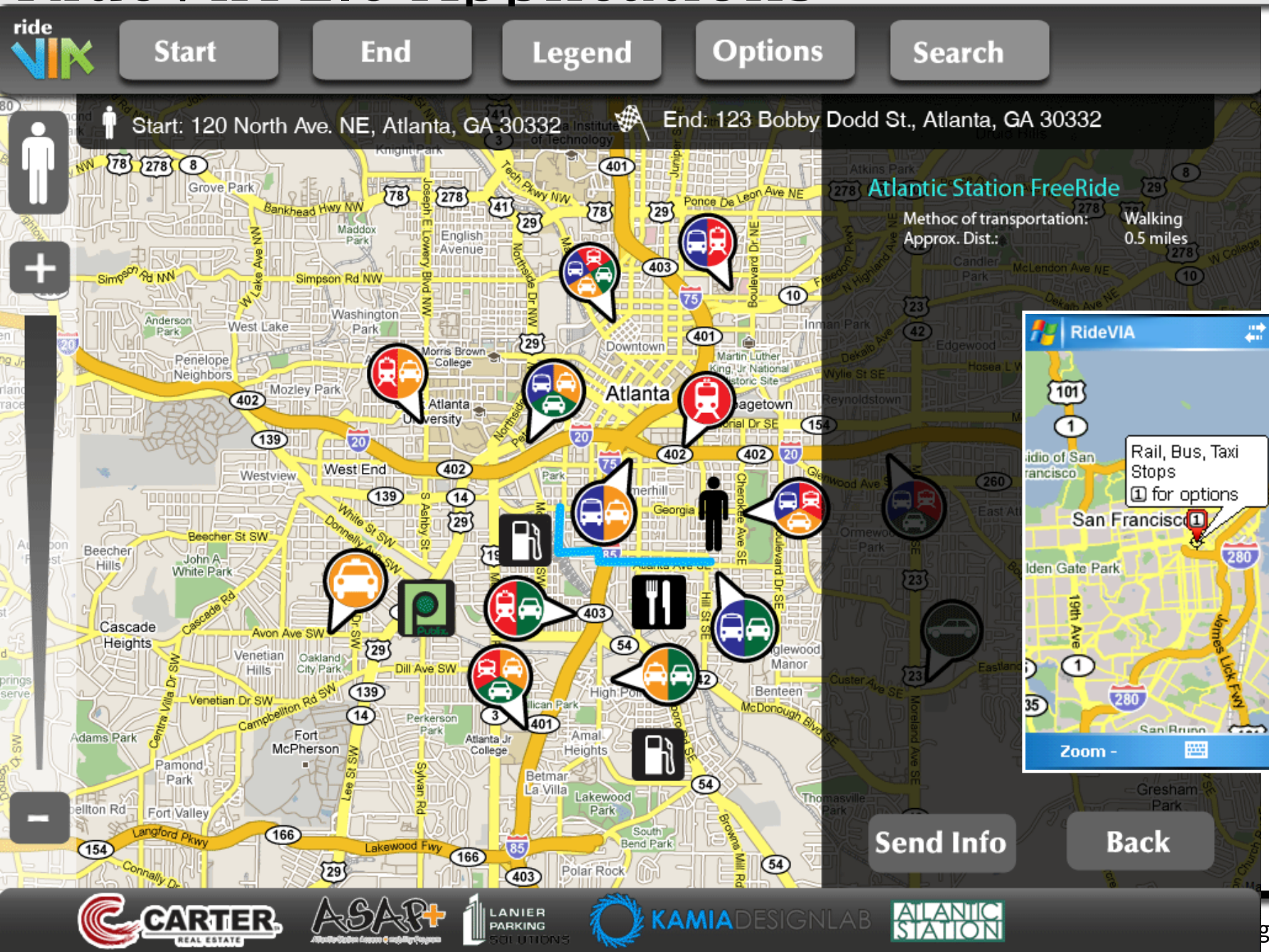
RideVIA 1.0 Applications







RideVIA 2.0 Applications



What Next?

- Pilot around campus
- Working with Georgia Tech
- Working with City of Atlanta
- Additional Funding Sources

www.ridevia.com