# Regional Transit Vision Technology Decision

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# Regional Transit Vision

- Concept 3 – Creating and Realizing the Regional Transit Vision

- Atlanta Region's long-range transit vision

- Adopted 2008

- Updated in 2012 – with an updated Map and Project List

# Project Goals

- Revisited Project List
- Develop Recommendations for
  - Evaluation Criteria
  - Evaluation Tools
- Evaluate Projects for inclusion in the Plan Update
- Update Plan
- Formalize Framework for evaluating projects going forward

# 2017 Regional Transit Vision Update
# Project Team

thingtech

TRANSPORT FOUNDRY

Trillium

GRIDWORKS

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# Project Timeline

Contract runs 12-2016 through 3-2018

- Project Kickoff November 2016
- Stakeholder Meetings:
  - December 2016
  - March 2017
  - May 2017
  - July 2017
- Develop Universe of Projects
- Develop Evaluation Framework
  - Tier/Matrix
  - Evaluation Metrics
  - Data Sources
- Develop Set of Evaluation Tools
- Project Evaluation
- Plan Update

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# Technology Selected
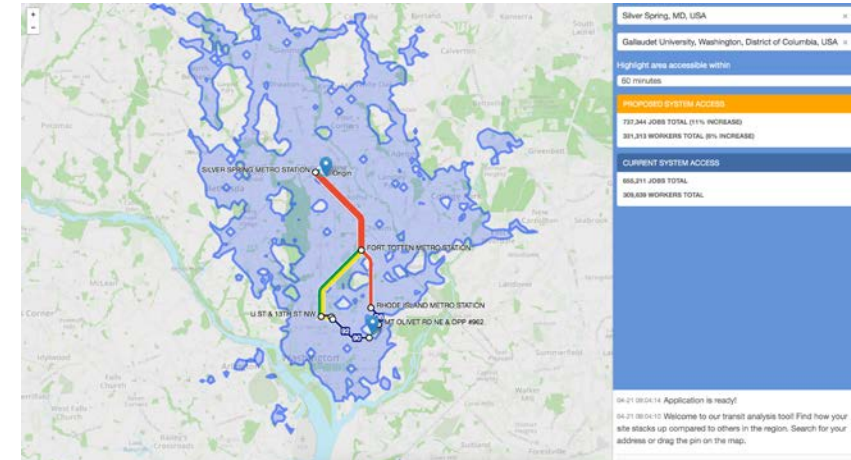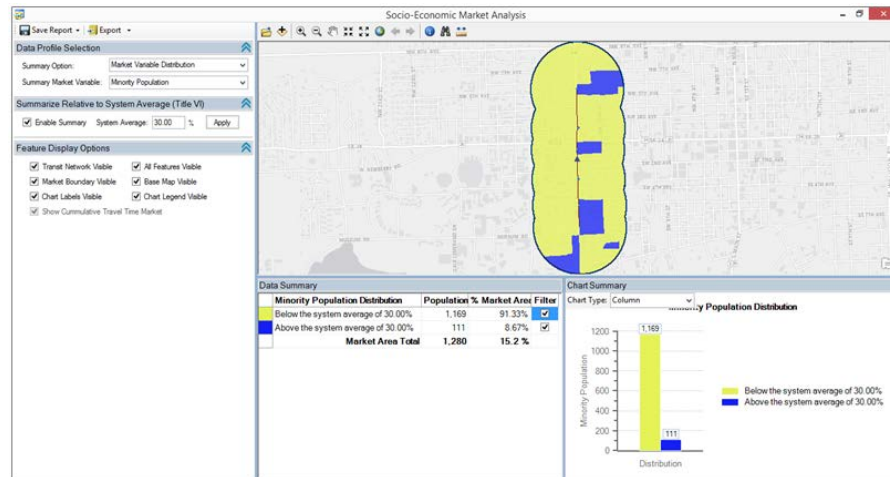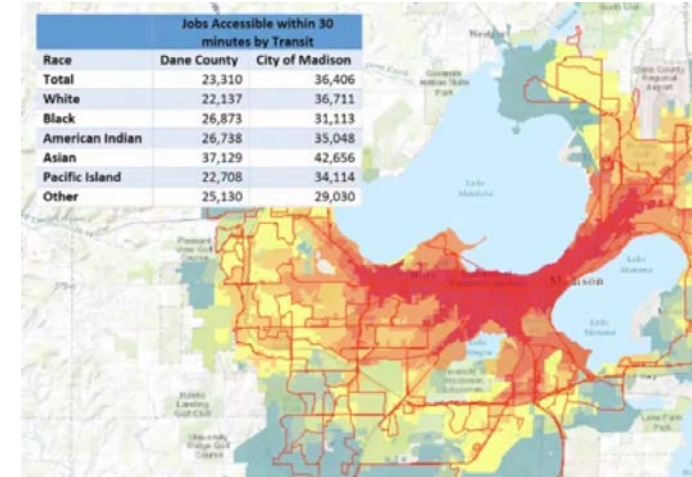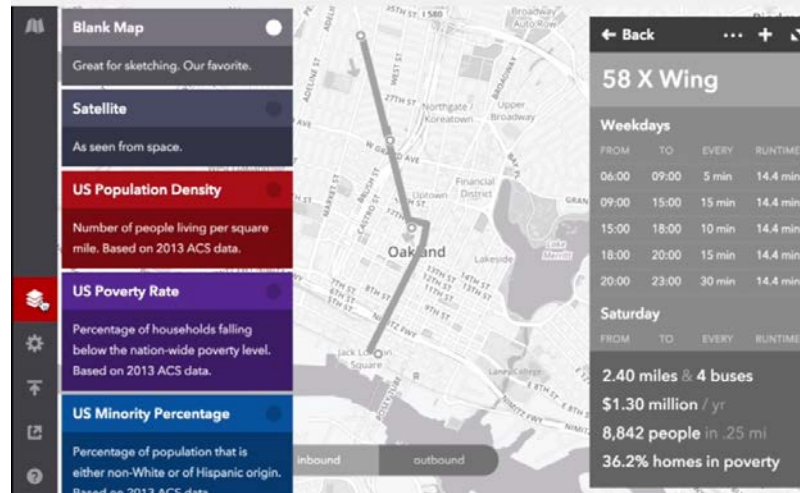
# Test Projects

- Cover all Modes
- Geographically Diverse
- ETA inclusion
- Approximate alignments

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# Evaluation Criteria

- Ridership
- Asset Management/Efficiency
- Air Quality and Congestion
- Social Equity
- Land Use Compatibility
- Accessibility (Employment and other Destinations)

# Test Results

| Criteria | Example Measure | Conveyal Analyst | Citilabs Sugar Access | Remix | TBEST | TF CityCast |
|---|---|---|---|---|---|---|
| Mobility & Congestion | Ridership | | | | ● | ● |
| Asset Management | Riders/service mile | | | ● | ● | ● |
| Air Quality & Climate Change | Automobile VMT | | | | | ● |
| Social Equity | Jobs in 45 minutes for ETA population | ● | ● | ● | ● | ● |
| Land Use Compatibility | Residential catchment | ● | ● | ● | ● | ● |
| Employment Accessibility | Jobs in 45 minutes | ● | ● | ● | ● | ● |

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# Strengths and Weaknesses

| Software | Biggest Strength | Biggest Weakness |
|---|---|---|
| Conveyal | Web application | Inconsistent performance and results |
| Sugar | Flexibility | Difficult network editor |
| Remix | Ease of use | Simplistic |
| TBEST | Fully-featured | Data extraction |
| Citycast | Complete microsimulation | Lack of user interface |

| Scenario | Conveyal Mean Positive Access to Jobs Effect | Sugar Household Mean Work Access | Remix Jobs Catchment | TBEST Access via Transit* | CityCast % Change in Median Commute |
|---|---|---|---|---|---|
| Streetcar | 1,749.17 | 83,737 | 4,137 | | 0.65 |
| Light Rail | 11,061.63 | 85,049 | 18,870 | | -10.07 |
| BRT/Express | 13,448.54 | 86,075 | 42,120 | | -3.79 |
| Commuter Rail | 2,490.04 | 84,862 | 16,782 | | -0.98 |
| Heavy Rail/Station | 2,473.08 | 84,595 | 365 | | -3.81 |

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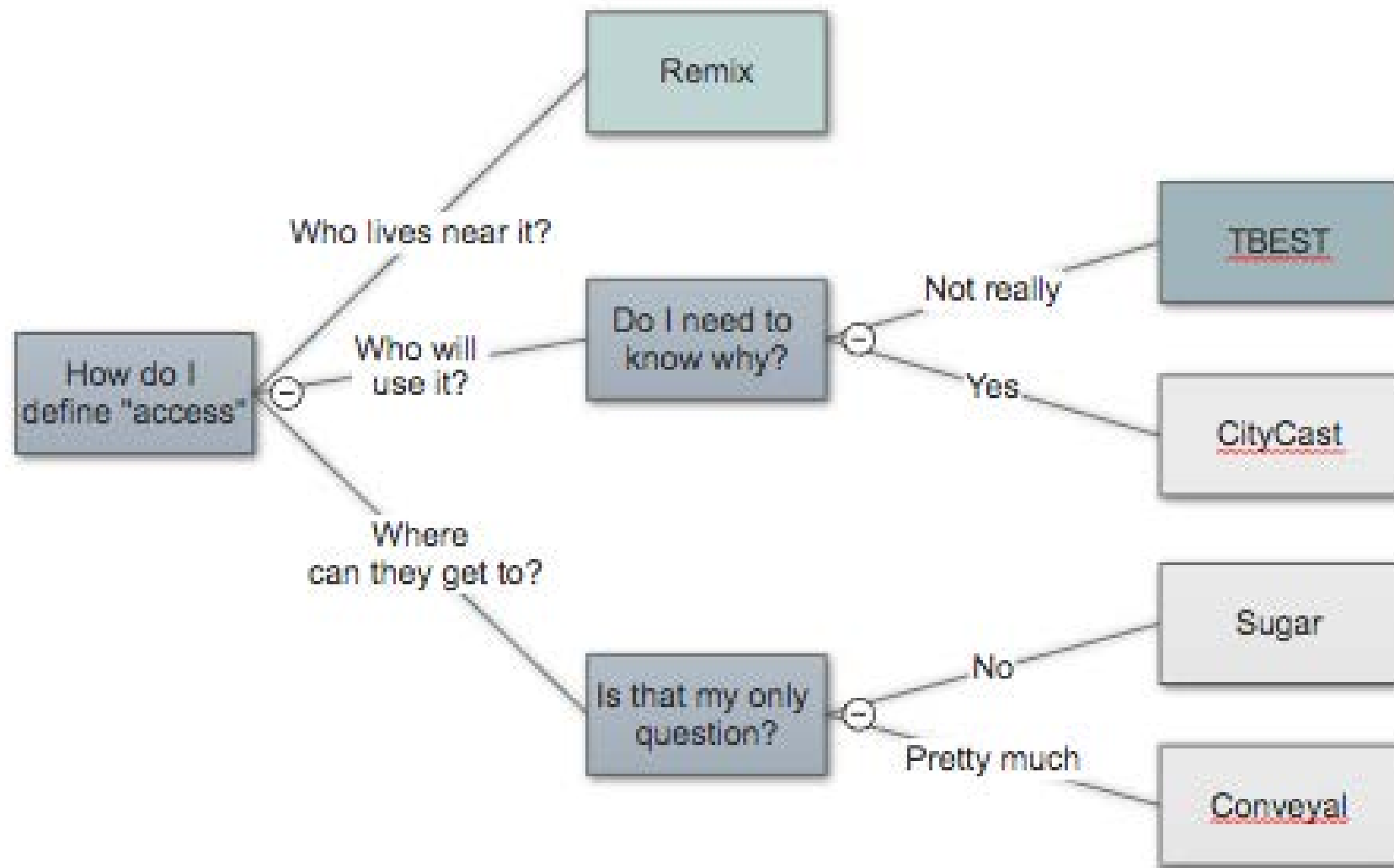
# Evaluation Criteria not Addressed in Software

- Network Reliability
- Network Resiliency
- Multimodalism
- Environmental/Cultural Impacts

# What evaluation criteria is most important to us?

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- Employment Accessibility
- Land Use Compatibility
- Social Equity

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| Criteria | Example Measure | Conveyal Analyst | Citilabs Sugar Access | Remix | TBEST | TF CityCast |
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| Mobility & Congestion | Ridership | | | | ● | ● |
| Asset Management | Riders/service mile | | | ● | ● | ● |
| Air Quality & Climate Change | Automobile VMT | | | | | ● |
| Social Equity | Jobs in 45 minutes for ETA population | ● | ● | ● | ● | ● |
| Land Use Compatibility | Residential catchment | ● | ● | ● | ● | ● |
| Employment Accessibility | Jobs in 45 minutes | ● | ● | ● | ● | ● |

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Remix

Who lives near it?

TBEST

Not really

How do I define "access"

Who will use it?

Do I need to know why?

Yes

CityCast

Where can they get to?

Sugar

No

Is that my only question?

Pretty much

Conveyal

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# Where are we now?

- Remix
- Do we need a second tool
- Best option for second tool
- Evaluate costs

# Next Steps

- Select Technology/Finalize Evaluation Framework
- Evaluate Universe of Projects
- Update Plan
- Formalize Project Evaluation Process