

Virtual Innovation Hall Participants



Virtual Innovation Hall

As an event to promote collaboration between transportation planners, engineers, and policy makers, the Virtual Innovation Hall concept provides another opportunity for transportation partners to showcase innovative planning tools, approaches, and projects that attendees may be able to apply in their own communities.

From cutting edge visualization techniques to detailed data analyses, participants from all over the State have shared their ideas, experiences, and best practices with us. We hope that you will take a moment to view the Virtual Innovation Hall Participants. Through descriptions, web links, and contact information, you can review and connect with the participants at your convenience.

Click on the Innovation Hall participants below to be directed to a description of the organization's innovative tool or approach!

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Modeling, Data Management, and Analysis

Caliper



Description

Caliper provides an integrated suite of GIS tools for traffic modeling and mapping. TransModeler is a powerful and versatile traffic simulation package applicable to a wide array of traffic planning and modeling tasks. TransModeler simulation software is capable of simulating connected and autonomous vehicles and performing both mesoscopic and microscopic dynamic assignment for a regional network. The software also includes 3D animation capability. Using the TransCAD travel demand modeling software, Caliper has developed accessibility and National Performance Management Research Data Set reporting tools that better equip public agencies to perform their required planning functions.

Links

TransModeler Traffic Simulation Software: https://www.caliper.com/transmodeler/default.htm
TransCAD Transportation Planning Software: https://www.caliper.com/tcovu.htm
Parallel And Parallel And

Software Products: https://www.caliper.com/default.htm

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Digital Source Book



Description

The Digital Source Book is the online home for The FDOT Source Book, the yearly comprehensive overview of Florida's transportation system mobility performance. At FDOTSourceBook.com, you can dive into performance measures in more detail, including measures at different geographic scales beyond statewide, such as vehicle miles traveled in a particular county or travel time reliability in a single FDOT district. Where available, measures are even available mapped to the individual roadway segment. The Digital Source Book has performance measures for all modes, including transit, aviation, seaport, and bike/ped as well as auto and truck. With ten years of data at your fingertips, it's easier than ever to find the information you're looking for.

Link

The FDOT Source Book: www.fdotsourcebook.com

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East Central Florida Regional Planning Council



Description

Land Overlaid on Transportation Information System (LOTIS) software uses highly-precise ArcGIS transportation and land use databases alongside a series of first-of-their-kind geospatial algorithms to provide urban planners, GIS analysts, and land developers with the tailored analytics they need to make sound decisions in an ever-changing urban environment.

With the goal of improving bicycle and pedestrian mobility, transportation network safety, land use planning, and location-intelligence and livability in Metro Orlando, LOTIS has ten specialized land use and transportation GIS tools that analyze transportation network safety deficiencies and land use opportunities within a single data frame. LOTIS allows planning teams to quickly assess project areas, allowing maximum time for innovative solutions, while cutting back on costs associated with data collection.

The LOTIS database is usable by any municipality, transportation planning organization or land planning entity and currently covers the Orlando Metro Area of Orange, Osceola, and Seminole counties. Information on private sector use of the data will be available shortly.

Check out the project website below to see all the different metrics and applications!

Links

LOTIS PowerPoint: https://889165ce-2020-4ef4-8e1b-

6d42ae03ec9c.filesusr.com/ugd/4c4fbd_b27e744492ea40ee9131035267801769.pdf

LOTIS Website: www.ecfrpc.org/lotis

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StreetLight Data



Description

StreetLight Data is a mobility analytics platform that leverages big data to address transportation questions on-demand. We process trillions of geospatial data points to measure how vehicles, bikes, and pedestrians interact. Hundreds of DOTs, MPOs, municipalities, and new mobility companies across the United States and Canada have found innovative uses for our data, including:

- O-D and select link analyses
- Cut-through traffic
- AADT or turning movement counts
- Validating or calibrating models
- Corridor improvements
- Complete streets / multimodal

FDOT, for instance, needed detailed freight data for a busy section of I-75. Although they had volume sensors in place to capture total freight volume, that data didn't tell them what percentage of trucks were short-haul traffic versus long-haul traffic. With StreetLight Data, they were able to find out what percentage of trucks were long-haul commercial traffic, how many trucks entered or exited on each on and off-ramp, and whether or not freight traffic mitigation warranted further exploration.

From investigating questions that historically could not be answered to conducting everyday analyses faster and with fewer resources, transportation experts across the country are using StreetLight's analytics to make data-driven decisions.

Links

StreetLight Data: www.streetlightdata.com

Quantifying Long Haul Trucks on Florida's Highways: https://learn.streetlightdata.com/freight-data-florida

Register for a live demo: https://register.gotowebinar.com/rt/2744953174625859597

Running Transportation Projects from the Safety of Your Home: https://learn.streetlightdata.com/transportation-safety-home

Use Big Data to Understand COVID-19's Impact on Transportation:

https://learn.streetlightdata.com/covid-19-webinar

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Transportation Boarding Estimation Simulation Tool (TBEST)



Description

The Transit Boarding Estimation Simulation Tool (TBEST) is a GIS-based transit planning analysis program provided by Florida Department of Transportation Public Transit Office. TBEST assists agencies to better understand the potential impacts of transit service changes on overall system performance. TBEST can estimate transit ridership by time of day and provides multiple analytical tools to evaluate transit service, socio-economic markets, land use markets, shared mobility markets, Federal Transit Administration Title VI, and network accessible markets.

Links

TBEST Website: https://tbest.org/

2019 ESRI Webinar: https://www.esri.com/videos/watch?videoid=8SMSgKer_kA

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Planning Approaches and Documents



Broward Metropolitan Planning Organization

Description

From the transportation planning equity assessment to the Vision 2100 and Strategic Business Plan, the Broward Metropolitan Planning Organization has incorporated innovative tools and techniques into several programs:

- The transportation planning equity resource is a standardized process to consistently and comprehensively evaluate plans and programs in conjunction with Federal Environmental Justice and Title VI regulations. This assessment is unique in that it uses a composite score or evaluation of many of the required federal requirements and beyond. This assessment has uses far beyond transportation planning and has already been used by municipalities for community planning purposes as well as various community and non-profit agencies.
- In an ever growing and changing region, the Strategic Business Plan addresses the current economic climate and the rapid pace of change in society and technology.
- Understanding the unique challenges that face South Florida in both the immediate and longer-term future and looking at the future needs of the region and beyond, the Broward MPO created Vision 2100, a vision and plan for 2100 as an extension exercise of their Long Range Transportation Plan, Commitment 2045.

Links

Title VI Transportation Planning Equity Assessment: http://browardmpo.org/index.php/title-vi-transportation-planning-equity-assessment Interactive Transportation Planning Equity Areas Map: https://reports.mysidewalk.com/c34b42a988

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Central Florida Clean Cities Coalition



Description

The Central Florida Clean Cities Coalition is a United States Department of Energy program focused on the use of clean, domestically-produced alternative fuels, including electric, natural gas, biofuels and others. The Coalition provides technical and business support to multiple government and private fleets to save energy and promote the use of domestic fuels and advanced vehicle technologies in transportation. There are four Clean Cities Coalitions in Florida, please contact them to partner in your area.

Links

Central Florida Clean Cities Coalition: https://cflccc.org/

North Florida Clean Fuels Coalition: http://northfloridatpo.com/clean-fuels/

Tampa Bay Clean Cities Coalition:

https://www.usf.edu/pcgs/initiatives/tampa-bay-clean-cities-coalition/

Southeast Florida Clean Cities Coalition:

http://sfregionalcouncil.org/portfolio-items/se-fla-clean-cities-coalition/

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Metro Analytics



Description

Metro Analytics developed the "Right-sizing" process for the National Cooperative Highway Research Program 14-19 Right-Sizing Toolkit. "Right-sizing" transportation infrastructure is repurposing, re-using, or fundamentally re-sizing (either larger or smaller) an existing asset (or in some cases, plans for a future asset) for a newly understood economic function or purpose. As transportation and land markets have shifted over the decades, transportation infrastructure has often remained rigid — standing as long as a century or more but no longer generating the economic benefits which justified its construction. As COVID-19 reshapes our future, challenging revenue forecasts, Right-sizing may be an important answer to new questions.

Links

Right-Sizing: https://metroanalytics.com/right-sizing/
Transportation Research Board 2020 Adaptive Right Sizing:
https://www.youtube.com/playlist?list=PLgPORxUyPFWkPq4ddSbsgowWk3_RaPfIG

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Visualization Technology

Urban SDK

Description

Urban SDK has incorporated real-time connected vehicle analytics and performance measure software into projects with the Florida Department of Transportation (FDOT) District 2, North Florida Transportation Planning Organization (TPO), and Miami Dade TPO. In FDOT District 2, the software provides real-time performance measures on any road in the district (and the State of Florida) from 150+ integrated data sources including Sunguide, Ritis, Bluetoad, NOAA, Waze, OSM, FHP, FDOT Open Data Hub, FHWA, ATMS, NOW, Micromobility, Google Maps, Cisco, and multiple connected vehicle sources.

Links

FDOT District 2 Case Study and Product Overview: https://www.urbansdk.com/blog-posts/real-time-speed-congestion-pedestrian-crossing-and-safety-performance
Request a virtual demonstration during Transplex: https://meet.intercom.com/urbansdkdemo

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