



GEORGIA INNOVATES

Georgia's new sustainable material life cycle tool combines local, regional and national data from the Department of Commerce's Bureau of Economic Analysis (BEA) with the U.S. EPA's Environmentally-Enabled Input-Output (USEEIO) model. Our Fall 2020 Idea Challenge will provide communities with data visualization tools aimed at the following outcomes:

IDENTIFY YOUR ASSETS

Explore local industry levels and identify opportunities to reduce environmental impacts and generate new revenue streams.

SHOWCASE YOUR COMMUNITY

Share your community strengths and attract new industries using interactive tools to generate material flow diagrams for local goods and services, energy production and innovative new technologies.

ATTRACT NEW INVESTMENT

Expand local opportunities by attracting new businesses, new manufacturing facility development and sustainable technologies.

By comparing the impact of local mixes of industries, Georgia communities can uncover new opportunities to create sustainability-focused business partnerships that reduce environmental impacts, reuse/recycle resources, increase revenue and attract new economic development.

COMMUNITY INPUT-OUTPUT MODEL

- | | |
|-----------------|---------------------|
| 1. Value-Added | 6. Green Materials |
| 2. Quality Jobs | 7. Local Suppliers |
| 3. Clean Air | 8. Inclusive Design |
| 4. Clean Water | 9. Health+Happiness |
| 5. Clean Energy | 10. Creates Beauty |

ENVIRONMENTALLY-ENABLED

Avoid Negative Impacts

- Acid Rain (ACID)
- Freshwater Ecotoxicity (ETOX)
- Water Eutrophication (EUTR)
- Global Climate Change (GCC)
- Respiratory Effects (HRSP)
- Items Toxic to Humans (HTOX)
- Ozone Depletion (OZON)
- Smog Formation (SMOG)

Conserve Resources

- Energy Use (ENRG)
- Land Use (LAND)
- Minerals and Metals (MINE)
- Water Use (WATR)

Eliminate Waste

- Food Waste (FOOD)
- Hazardous Waste (HAZW)
- Municipal Solid Waste (MSW)

"Georgia is the first state to apply the EPA's USEEIO model to compare economic and environmental impacts across all industry sectors for community planning, business development and environmental education."

Georgia Centers for Innovation - Energy Director, Costos Simoglou

We **SPEAK** Business

Register your community interest at model.georgia.org

SUSTAINABLE COMMUNITIES IDEA CHALLENGE

SATURDAY, SEPT 12, 2020 - 10AM TO 8PM

SUNDAY, SEPT 13, 2020 - 11AM TO 7PM

The Kendeda Building for Innovative Sustainable Design

Presented By:

The Georgia Department of Economic Development
The U.S. Environmental Protection Agency (EPA)
Georgia Tech Industrial and Systems Engineering
Code for America - Atlanta and Savannah Chapters

Teams will participate both virtually and in-person.
Award ceremony will be streamed online at 5pm Sunday.

Form a team with your company or school.
Contribute your organization's coding and data talents to customizing environmentally-enabled input-output models for Georgia communities.

NEW TECHNOLOGY SCENARIO ANALYSIS

Georgia communities, companies and coders will be analyzing new technology scenarios using the U.S. Environmentally-Extended Input-Output model (USEEIO) developed by the U.S. Environmental Protection Agency (EPA). Thus far, the 2020 Idea Challenge topics include:

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- Controlled Environment Agriculture (CEA)
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- Cyclical Supply Chains, Advanced Wood Products
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- Splitting Carbon and Hydrogen from Waste Streams
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- Fermenting Syngas into Low-cost Bioproducts and Fuels
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- Contribute your 1 to 3 page idea proposals online

Learn more and register to compete for over \$5,000 in awards at model.georgia.org

SUSTAINABLE MATERIAL MANAGEMENT

Georgia university students are combining industry data with community input to create material flow interfaces and data visualizations for sustainable materials management, a process that reuses materials for increased productivity and cost savings. Machine learning is being used to make inferences based on environmental and economic indicators.



Achieve your organization's net zero carbon goals
Join us in analysing technological innovation in Georgia industries, utilities and logistics to reduce the local carbon footprint while creating quality jobs in transformative new industries.



Contact us about sponsorship opportunities.