U.S. DOT program founded in 1987

MAP-21 Authorization for 2 years:

- Five National Centers for U.S. DOT goals:
  - Environmental Sustainability
  - Economic Competitiveness
  - State of Good Repair
  - Livability
  - Safety

- 10 Regional Centers
- 20 Tier 1 Centers

$2.8 million per year for 2 years

100% match
NATIONAL CENTER CONSORTIUM

- UC Davis
- USC with CSU Long Beach
- Georgia Tech
- UC Riverside
- University of Vermont
We will provide national leadership in reducing carbon emissions from transportation while supporting climate adaptation and continued mitigation of air pollution and other environmental impacts.

Our goal is to transform the transportation system to improve environmental sustainability nationwide.
NATIONAL CENTER THEMES

**THEME 1:**
Low-Carbon Infrastructure and Efficient System Operation

**THEME 2:**
Low-Impact Travel and Sustainable Land Use

**THEME 3:**
Toward Zero-Emission Vehicle and Fuel Technologies

**THEME 4:**
Institutional Change

**Settings:** Urban – Suburban – Non-motorized

**Modes:** Automobiles – Van Pool/Car Pool – Transit/Rail – Non-motorized

**Sectors:** Private – Public

**Outcomes:** Environment – Economy – Social Equity – Health

**Scales:** Global – National – Regional – Local

**Market:** Passengers – Services – Goods
NATIONAL CENTER ACTIVITIES

Research
- State-of-the-Knowledge White Papers
- Jump-Start Projects
- Open call for Proposals

Engagement
- Leadership Council
- Research-in-Action User Groups
- National Summit on Transportation and Climate Change
- Policy Forums and Symposia
- Website and Social Media

Education
- Model Transportation Sustainability Curriculum
- Graduate Student Research and Internship Activities
- Advanced Training for Professionals
- Programs to Increase Workforce Diversity
### WHITE PAPER TOPICS

| Low-Carbon Infrastructure and Efficient System Operation | Managing roadway systems to reduce GHG emission  
Reduction of lifecycle GHG emissions from road construction and maintenance  
Eco-driving for cars, buses, and trucks to reduce emissions |
|--------------------------------------------------------|--------------------------------------------------|
| Low-Impact Travel and Sustainable Land Use            | Future of travel demand in the U.S.  
Effectiveness of land use and demand strategies in reducing vehicle-miles-traveled and GHG emissions |
| Toward Zero-Emission Vehicle & Fuel Technologies      | Strategies for transitioning to zero-emission vehicles |
| Institutional Change                                  | Working toward a policy framework for reducing GHG emissions in the transportation sector  
Assessing transportation financing options from a GHG perspective  
Performance-based approaches to incentivize local adoption of sustainable land-use policies  
Climate change adaptation for state, regional, and local agencies |
Role in the Policy Process:

1. **Set Priorities**
   - Use research to identify emerging issues

2. **Periodic Review**
   - Provide due diligence and expert review

3. **Develop Policies**
   - Translate and deliver relevant research
   - Test ideas; Iterative policy analysis

4. **Consult and Refine Policy**
   - Timely information to improve decision-making

5. **Implement Policy**
   - Analysis to reduce waste and improve results

6. **Approve Policy**
   - Set Priorities

The cycle continues in this manner, illustrating the iterative nature of policy development and implementation.
ENGAGEMENT MECHANISMS

- Leadership Council
- Research in Action Users Groups
- National Summit on Transportation and Climate Change
- Policy forums and webinars
- Participation in conferences and symposia
- Direct technical assistance
  - In-person briefings
  - Policy briefs
- Website/Social Media/Press
NATIONAL CENTER COLLABORATIONS

State Departments of Transportation
California, Vermont, Georgia
New York, Maine, Washington, New Hampshire, Michigan

University Transportation Centers
Tier 1 Centers
Regional Centers
National Centers

Non-Profit Organizations
Environmental NGOs and Foundations focused on transportation and environmental issues (12+)

Metropolitan Planning Organizations
California (18 MPOs)
Vermont and Georgia (more than 20 MPOs)

Local Governments
County and City Agencies in Georgia, Vermont and California (including major ports and school districts)

Industry and Other Private Organizations
Auto manufacturers (15)
Oil Companies (5)
Electric Utility Companies (7)
Telecommunications and Technology Firms (6)
Major Consulting Firms (7)

Other Public Agencies
National and state transportation, air quality, energy, environmental, health, safety, and agricultural agencies and laboratories (over 30)
Questions for discussion

• With just two years of funding committed, how do we balance getting things done now versus building for the future?

• How can we leverage this opportunity to establish UC Davis and our partners as the permanent home of the national center, whether funding is extended or not?

• As the national center, how can we best help shape research agendas and educational programs beyond those of our partner institutions?

• How does this opportunity relate strategically to the broad array of activities at UC Davis and our partner institutions? How can we best leverage those activities for mutual benefit?
ENGAGEMENT CRITERIA

The following criteria guide National Center policy engagement:

- **NEED** – Clearly identified need for science-based input to inform policy
- **RELEVANT EXPERTISE** – National Center has access to relevant research and expertise through its network
- **CONSISTENCY** – The opportunity advances the Center mission and is well matched with its core strengths
- **PROBABLE IMPACTS** – The Center can make a critical and tangible impact to the policy or policy process
- **TIMELINESS** – The Center can provide useful and relevant information in a timely manner
- **URGENCY** – Action in the near-term is critical to improve decision-making
- **SIGNIFICANCE** – The issue has a significant effect on sustainability transportation