# C2SMART≠ER

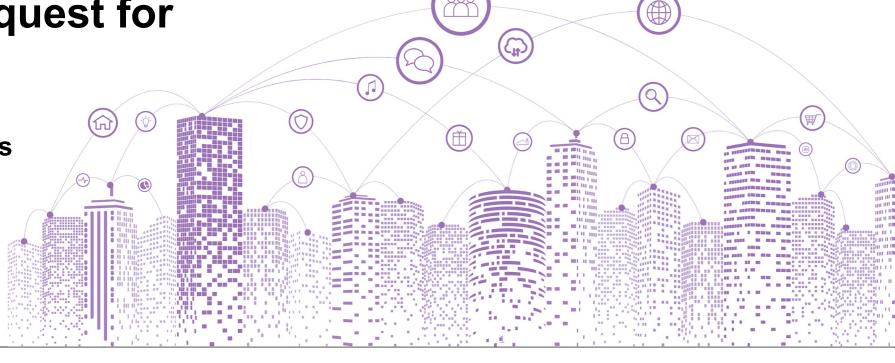
CONNECTED COMMUNITIES FOR SMART MOBILITY
TOWARDS ACCESSIBLE & RESILIENT TRANSPORTATION
FOR EQUITABLY REDUCING CONGESTION





U.S. DOT requirements for center-funded research projects

August 2023





1 RFP & Submission Requirements

**Agenda** 

Goals of C2SMARTER funded projects

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Roles, Responsibilities, and Requirements

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**Questions & Answers** 











## 1. 2023-2024 Request for Proposals



#### Key Steps & Milestones:

- 1. Abstract Submission
- 2. Full Proposal Submission
  - Due by: **August 27, 2023**
- 3. External Peer-review
- 4. Notification, response to comments & revised submission
  - Expected: Mid-September 2023
- 5. Project authorization & kickoff
  - Expected: October 1, 2023











## 1. 2023-2024 Request for Proposals



#### **Proposal Submission Steps:**

Submit online at:

https://c2smarter.engineering.nyu.edu/submit-a-proposal-for-c2smarters-2023-rfp/

Deadline: August 27, 2023

#### **Submission Requirements**

- 1. Proposal Document (.docx format)
- 2. Proposal Budget (.xlsx format)
- 3. 2-page max CVs of Key Personnel (PI & Co-PIs at minimum)
- 4. 2-page max budget justification
- 5. (Optional) Letters of Support
- 6. (If applicable) IRB protocol













#### Research Focus on multi-modal congestion solutions

- One stop shop for congestion-related research
- Transformative research
  - *New:* U.S. DOT intends to review individual projects
- Equity in transportation

#### Impactful outcomes

- Real-world partners and implementations/products
  - Example: C2SMART-NYCDOT Testbed on the BQE
- Meet U.S. DOT RD&T strategic goals and performance metrics
  - What is the value added of this funded effort?

#### Project plans

- Multi-University projects and collaborations are very important
- Use C2SMARTER funding as seed funding to develop larger projects with national impacts
- Avoid repetition of work across other centers and also in time
- Coordination and synergy with mobility UTCs













#### Key Research Outputs/Outcomes

- Multi-modal models/systems reducing congestion created using novel data, or AI/ML
- Tools, methods, or procedures to measure increases in social, spatial, environmental, and economic equity
- New or enhanced cyber/physical testbeds created and shared
- Workshops, seminars, or forums to share best practices, technology, data
- Peer-reviewed papers and conference presentations

#### Key Education/Workforce Development Outcomes

- Increase the diversity of students graduating C2SMARTER programs
- New/modified courses on congestion, and/or strategic area of transportation equity
- Working professionals attending C2SMARTER trainings/workshops
- New/modified K-12 or non-degree programs targeting under-represented enrollees













#### **Minimum** Requirements

- 50% non-federal matching funds for research projects
- **Deliverables** including a substantive final report
  - Final reports will also be peer-reviewed
- Data management plan
- Technology transfer plan

#### **Preferred Proposals**

- Cash match from industry or agency partner
- Education, workforce development, or other partner-driven technology transfer tasks
- Cross-institution and collaborative joint proposals













#### Resources for Proposal Development

#### C2SMARTER DATA MANAGEMENT PLAN

https://c2smarter.engineering.nyu.edu/wp-content/uploads/2023/08/C2SMARTER-Data-Management-Plan-v0.9.pdf

#### U.S. DOT RD&T STRATEGIC PLAN

https://www.transportation.gov/sites/dot.gov/files/2023-01/USDOT%20RDT%20Strategic%20Plan%20FY22-26 010523 508.pdf

#### **EXAMPLE FINAL REPORTS**

https://c2smarter.engineering.nyu.edu/c2smart-publications/



Connected Cities for Smart Mobility towards Accessible Resilient Transportation for Equitably Reducing Congestion (C2SMARTER)

Master Data Management Plan

Version0.9

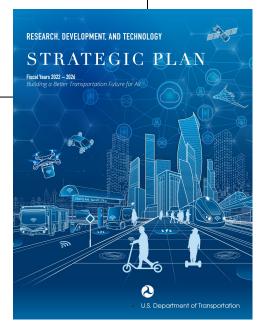
(Released July 31, 2023)

**Lead Institution** 

New York University

**Partner Institutions** 

New York City College of Technology North Carolina A&T University Rutgers University Texas Southern University University of Texas-El Paso University of Washington













## 3. Roles, Responsibilities, and Requirements



## All data, papers, articles, and other outputs of C2SMARTER-funded projects must be made publicly available per federal requirements

- 1. Datasets, code, and products generated as a result of C2SMARTER funds must be made available to the public and preserved for long-term access
  - e.g. the Center's Zenodo data repository
- 2. All reports and full-text pre-publication manuscripts must be uploaded to the National Transportation Library even if published in a journal or conference proceeding
  - All rights under copyright are non-exclusively retained by U.S. DOT and the terms and conditions of publication to peer-reviewed journals and other outlets do not impair the obligation of the authors to comply with the plan
- 3. Any charges or spending on grant account must comply with U.S. DOT requirements
  - https://www.transportation.gov/sites/dot.gov/files/2023-06/UTC General Provisions of Grants FINAL June 2023.pdf











## 3. Roles, Responsibilities, and Requirements



- 1. Semi-annual progress and performance reporting
- Progress updates are critical to C2SMARTER's U.S. DOT reporting and its continued funding
- Reported information is aggregated and reported out to U.S. DOT, which shares updates on the UTC program to justify program funding to U.S. Congress
  - 1. Semi-annual Progress Report Document updates on project progress and outcomes
  - 2. Semi-annual Financial Report summary of grant spending from home institution's accounting department
  - 3. Semi-annual Project Performance Metrics Spreadsheet identification of outputs/outcomes meeting C2SMARTER performance reporting goals
- 2. <u>Meetings with center administration</u>
- PI/teams will meet with Center administration at the kick-off, midway point, and prior to conclusion of each project to provide updates and gain feedback
- Other meetings as required/requested







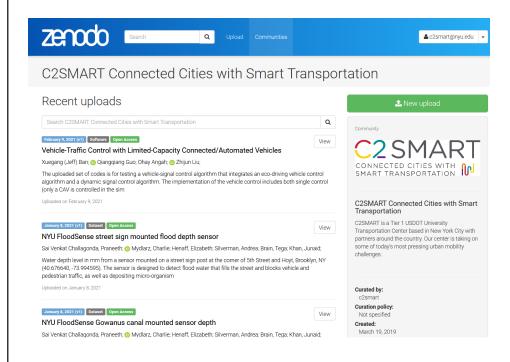




## 3. Roles, Responsibilities, and Requirements



### **Data Management Best Practices**



## C2SMARTER DATA MANAGEMENT PLAN

https://c2smarter.engineering.nyu.edu/wpcontent/uploads/2023/08/C2SMARTER-Data-Management-Plan-v0.9.pdf

| Data Description  | Standards<br>Employed   | Access Policies  | Re-use &<br>Derivative Policies   | Archiving & Preservation Plans  |
|---|---|--|---|---|
| Dataset is named, well<br>described , and linked<br>to a research project<br>or data program. | If data is created in proprietary formats, copies in open formats are also provided.                | Data is publically<br>accessible.  | The intellectual<br>property rights to this<br>dataset have been<br>established.                                | A data repository<br>dedicated to long-term<br>preservation has been<br>chosen for this data. |
| The types of data<br>generated by the<br>research or program<br>are known.                    | Data formats are standard for our field.  | What data will be<br>shared, and how, is<br>known and recorded.                                      | Data is licensed<br>under the most open<br>license possible, such<br>as Public Domain or<br>Creative Commons 0. | A minimum data retention period has been agreed upon with chosen archive.                     |
| The size of data is known and organization has capacity for files.                            | Directory and file<br>naming conventions<br>are documented &<br>used at time of data<br>collection. | Researchers have<br>received training to<br>protect PII and other<br>rights.                         | If there is a data embargo period, it is as short as possible.  | Persistent identifiers<br>(such as DOIs) are<br>used to link to the<br>data.                  |
| Long-term value of the<br>data to organization<br>and public has been<br>discussed.           | Metadata is used<br>to contextualize<br>the data, making it<br>comprehensible to us<br>and others.  | Personally Identifiable<br>Information (PII)<br>is protected or<br>anonymized.                       | Possible reuse<br>audiences for this data,<br>now and later, have<br>been considered.                           | Back-up and disaster<br>recovery plans are in<br>place.                                       |
| Parties responsible for<br>managing data are<br>known and listed.                             | Published metadata<br>schemas are<br>employed, & are<br>standard to the field.                      | Embargo periods<br>to protect PII and<br>business sensitive<br>information have been<br>established. | Special tools needed<br>to work with the data<br>are documented in<br>metadata.                                 | Staff has been<br>assigned to migrate<br>data files as data<br>formats change over<br>time.   |

Based on NTL's "Creating Data Management Plans" http://ntl.bts.gov/publicaccess/creatingaDMP.html

v.01, 2016-08-11











## 4. Questions & Answers



#### Center contact information

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- Website: <a href="http://c2smarter.engineering.nyu.edu">http://c2smarter.engineering.nyu.edu</a>
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#### Contact info for center personnel

- **Director**: Kaan Ozbay (<u>kaan.ozbay@nyu.edu</u>)
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- Grant Manager: Oishi Ahmed (oishi.ahmed@nyu.edu)











## **C2SMARTER Consortium Institutions**











