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**TRANSPORT SURVEYS: A REPORT FROM THE
TRENCHES**

**PRESENTED AT
COST- EUROPEAN COOPERATION IN THE FIELD OF
SCIENTIFIC AND TECHNICAL RESEARCH**

**ACTION 355: CHANGING BEHAVIOUR TOWARDS A
MORE SUSTAINABLE TRANSPORT SYSTEM**

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Transport Surveys: View from the U.S. Trenches

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**Action 355: Changing behaviour towards a more
sustainable transport system**

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Goals

- **Manage Survey Errors**
 - Coverage
 - Response
 - Measurement
- **Cost Effectiveness**

Changes: Changing Social/ Economic Characteristics

- **Demographics**
 - Immigrants, aging
- **Economics**
 - Bi-modal income, lifestyles, employment
- **Transport Network/ Policies**
 - Demand vs. Supply, Road pricing, Global Warming

Changes: Survey Environment

- **Sustainability of Survey Programs**
 - Funding a challenge
 - Communicating value of surveys
 - Data as an “asset”
- **Consumer Resistance - Non-Response**
 - Do not “X”, contact blocking
- **Person-based Phones**
 - Cell, VOIP
 - Sharing, Portability

Changes: Modeling Practices

- **Conventional Models**
 - Demographic and spatial resolution, better incorporation of time of day choice and peak-spreading.
- **Activity- and Tour-based Models**
 - Sensitivities of mode and time of day choice, emphasis on individual and household behavior for realistic modeling of response to changing transportation options.
- **Dynamic Assignment**
 - Consideration of the entire-route characteristics, recognition of wider variety of vehicle and travel types.

Result

- **Increased burden on current databases**
- **Amplified and diversified data needs**
- **Growing demand for data**
- **Increasing cost of “doing business”**

Changes: Survey Methods

- **Data Collection**
- **Sampling**
- **Data Processing**
- **Data Dissemination / Preservation**

Solutions: Data Collection Tools

- **Decrease Respondent Burden**
 - TripTracer (interactive map with transportation networks)
 - GPS-Streams in CATI Programs
 - GPS-only
- **Increase Coverage (unit and item)**
 - Multiple modes (web, telephone, mail)
 - Interviewer-mediated (dropping out, non-travel)
 - Rest and recycle (length of survey time)
 - Use of incentives
- **Decrease Cost**
 - Questionnaire Item Management Systems
 - Large choice-based samples (Mygistics)

Solutions: Sampling

- **Frame**
 - Address-based
 - RDD-Enhanced with Cell Phone
- **Approach**
 - Disproportionate approach stratified by essential variables
 - Market segment
 - Area type
- **Execution**
 - Don't generate whole sample
 - Review, reflect, readjust

Solutions: Data Processing

- **Enhanced Edit-Check Programs**
 - Across data files, across household members, across households
- **SQL-based Management Systems**
 - Integrating survey administration and survey results for real-time monitoring
 - Continuous data flow for quicker delivery and cost savings

Solutions: Data Dissemination

- Wiki-Type Survey Compendiums
- Data Visualization / Simulations
- Micro-Data Preservation Systems

Research Recommendations

- Multiple Modes: Survey Mode Effects
- Reducing Burden through Data Fusion
- Technology and Protocols: Sharing and Preserving Data