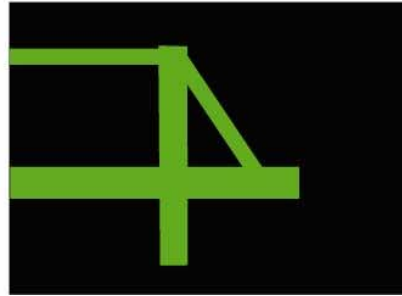
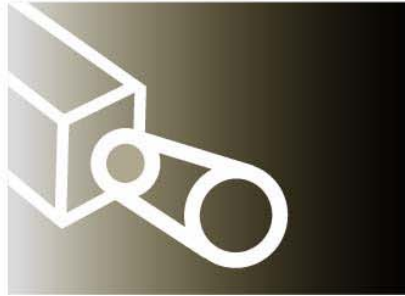
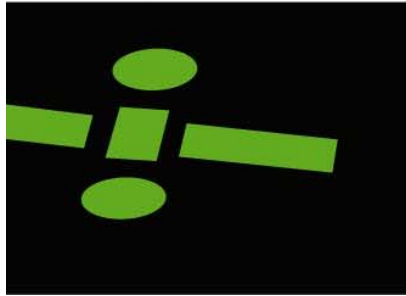


EXPLORATORY ADVANCED **RESEARCH**



Future Urban Transport

Presentation at Open Cities 2010

November 5, 2010, Washington, DC



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Federal Highway Administration

Presentation Objectives

- Key Transportation Trends
- FHWA EAR Program
 - Open research process
 - Ideas and results
- Impact of Social Media on Transportation Research



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Key Trends

- Aging infrastructure
- Aging population
- Energy, resource conservation
- Climate change, adaption
- Technological change
- Economic change, globalism



Program Authorization

- 2005 to present
 - Focus on high-risk, high payoff research
 - Strive for partnerships with public, private entities
 - Funding up to \$14 million annually*

* Appropriated funding may vary (\$10-11 million annually)



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Key Processes

- Focus on high-risk, high payoff research
- Merit review is used to enhance the quality of research processes and results
- Research stakeholders are involved throughout
 - From scoping of focus areas through communication of research results



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Focus Areas

- Integrating highway system concepts
- Nanoscale research
- Human behavior and Travel Choices
- New technology and advanced policies for energy and resource conservation
- Information sciences
- Breakthrough concepts in material science
- Technology for assessing performance



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Smarter, Safer Traffic

- Integrated active transportation systems
- Intersection controls
- Semi-autonomous driving



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Sustainable Infrastructure

- Nanoscale sensors for structural health
- New Technologies for renewable energy



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New Approaches, Policies

- Applying behavioral economics to travel
- Automated transit systems and community design
- Improved tracking of fuel use



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Partner Collaboration

- Research stakeholders are involved throughout
 - From scoping of focus areas through communication of research results
- Stakeholders include
 - Academic
 - Government (federal, state, and local)
 - Industry (businesses, associations)
 - International



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Partnerships Critical for

- Building Knowledge
 - Accelerating research, responding to new directions
- Building Research Capacity
 - Access to new ideas and methods
 - Improving research processes, modeling, measurement



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Thank You

EAR Program website

www.fhwa.dot.gov/advancedresearch

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