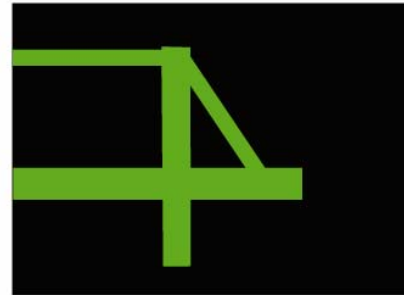
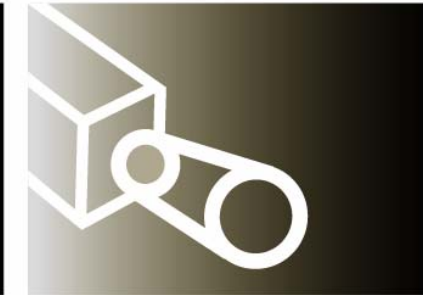
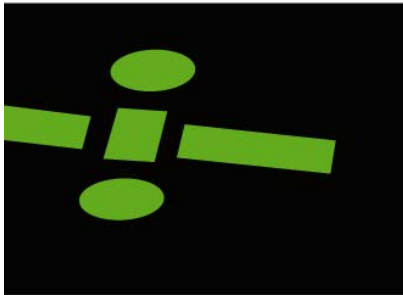


EXPLORATORY ADVANCED **RESEARCH**



Preparing for the Future of Highway Transportation

Special Libraries Association
2009 Conference

June 16, 2009

Washington, DC



U.S. Department of Transportation
Federal Highway Administration

Outline

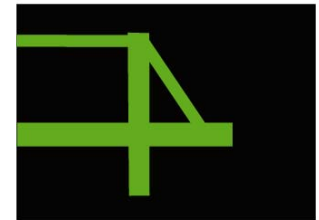
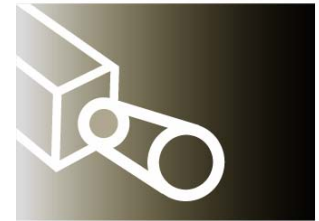
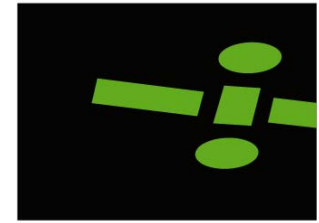
- FHWA Exploratory Advanced Research (EAR) Purpose and Process
- EAR impact on scientific knowledge and research capacity



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EAR Key Process

- Focus on high-risk, high payoff research
- All projects begin with initial stage research (e.g. scanning, literature review, etc.)
 - Assure leverage of the most recent, relevant and advanced research from all fields
- Not all initial stage research leads to (or is expected to lead to) follow-on or actionable results
- Merit review is used to enhance the quality of research processes and results



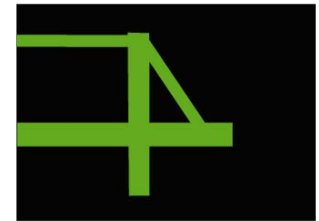
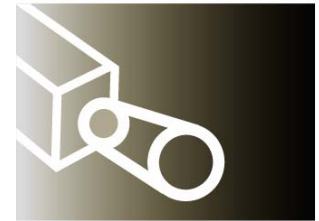
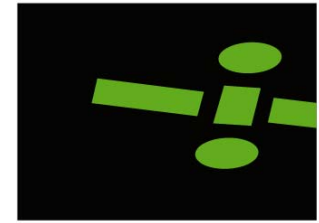
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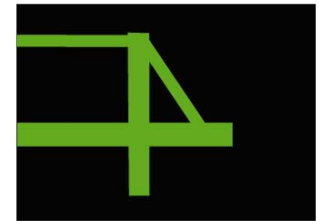
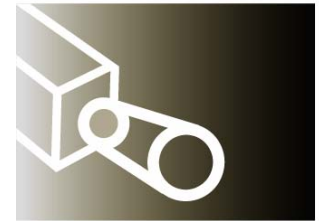
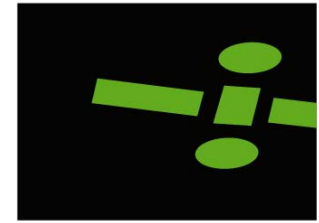
Key Partnerships

- Research stakeholders are involved throughout
 - From scoping of focus areas through communication of research results
- Stakeholders include
 - Academic
 - Government: Other Federal Agencies, State, Local, International
 - Industry: Businesses, Associations



EAR FY 09 Focus Areas

- Breakthrough concept for integrating highway safety and system operations
- Nanoscale research
- Massive scale systems
- Human behavior in traffic
- Financing highways for the next century
- New technologies and advanced policies for energy and resource conservation



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Building Knowledge

- Raising strategic and situational awareness
 - Accelerating trends
 - Responding to new directions
- Synthetic and cross-cutting topic areas
 - Learning communities
 - Multi-disciplinary approaches



Research Capacity

- Peer learning
 - Access to new ideas and methods through partnerships, fellowships
- Bootstrapping
 - Improving research processes; better modeling, measurements
- Research process evaluation



So what is the future of transportation?

Traffic signals that know when vehicles are arriving

Bridges that heal themselves

Roadways that remove pollution from the air, water

For more information

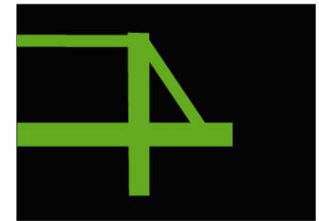
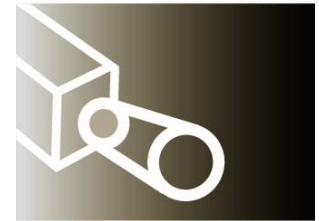
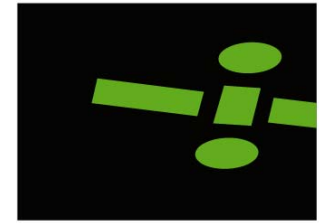
See the EAR Program website located at

www.fhwa.dot.gov/advancedresearch or

Contact David Kuehn, EAR Program Manager, at

(202) 493-3414 or david.kuehn@dot.gov

Thank you



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