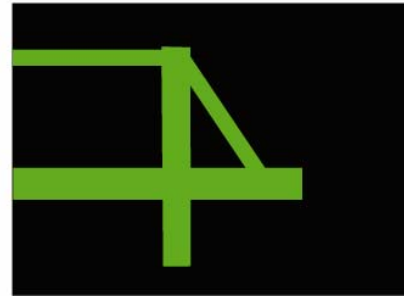
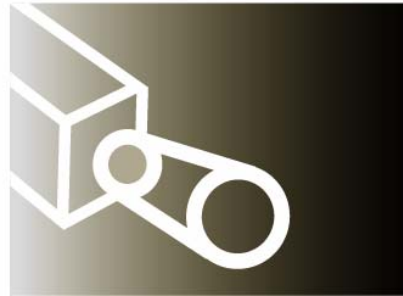
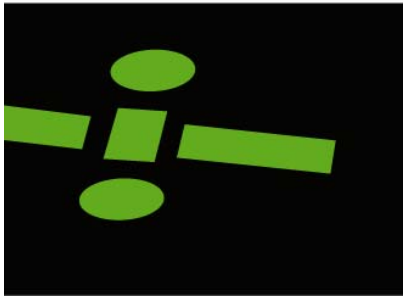


EXPLORATORY ADVANCED **RESEARCH**



The Impact of Scientific Partnerships on the Future of Transportation

Federal support of innovative research



Workshop Outline

- Objectives
 - Communicate big issues in highway research
 - Name who conducts highway research
 - Describe the FHWA Exploratory Advanced Research Program (EAR)
 - Illustrate research partnerships lessons
 - Assess future opportunities in highway research



Big Research Issues

- 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



Who Conducts Highway Research?

- FHWA
- University Transportation Centers
- State Departments of Transportation
- Industry
- International



EAR Key Process

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



Key Processes (continued)

- 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



Current Partnerships

- Academic
 - University Transportation Centers, other universities
- Government
 - Other Federal Agencies, State, Local
- Non-Governmental, Non-Profit
- Industry



Forming Partnerships

- Competitive advantage
 - Expertise
 - New ideas
 - Leverage resources, risk
- Potential obstacles
 - Gaining agreements
 - Partner viability
 - Project management and coordination



Managing Partnerships

- Competitive advantage
 - Flexibility and depth
 - Awareness and outreach
- Potential obstacles
 - Project management and coordination
 - Accountability



Continuing Partnerships

- Competitive advantage
 - Knowledge capacity building
 - Implementation across sectors
- Potential obstacles
 - Rights and ownerships
 - Bringing in new partners
 - Research results' hand-off



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Future Opportunities with FHWA EAR

- Agenda scoping
- Open competitions
- Short and longer-term work exchanges
- Serving as expert reviewers



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Thank you

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