



Transportation Research Program Administration International Scan

April 11-27, 2008



TRPA 2008

Transportation Research Program Administration Scan

Presentation Overview

- International Scanning Program
- Purpose of the TRPA scan
- High-level Summary of Findings
- Implementation Strategies

International Highway Technology Scanning Program

- Established to improve access to foreign highway innovations that could benefit the U.S.
- Jointly sponsored by FHWA & AASHTO in cooperation with TRB's NCHRP, the private sector and academia
 - Shared financing
 - Joint proposal development & topic selection
 - Shared responsibility for implementing the results
- Uses expert teams

Purpose of the TRPA Scan

- Enhance effectiveness of transportation research program administrative activities in the U.S.
 - Policy options and initiatives
 - Process improvements
- Identify and encourage opportunities for international collaboration for U.S. research activities



Scan Team Members

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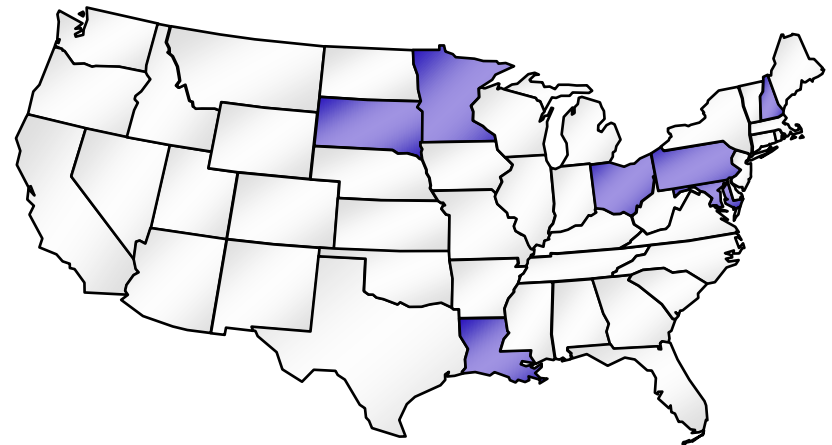
Laurie McGinnis, Associate Director, Center for Transportation Studies, University of Minnesota

Harold (Skip) Paul, Director, Louisiana Transportation Research Center, Louisiana DOTD

Glenn Roberts, Chief of Research, New Hampshire DOT

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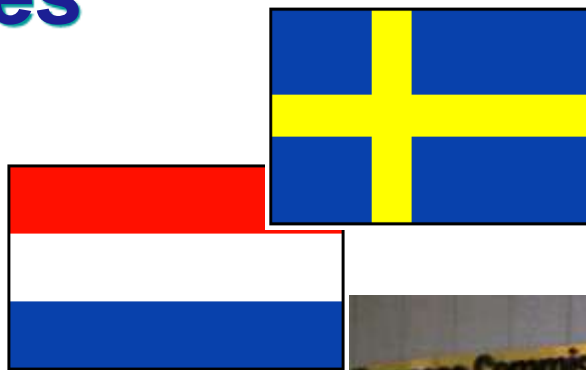
Scan Timeline

- AASHTO SCOR action item – October 2005
- Proposal submitted – October 2006
- 2008 topics (4) selected – January 2007
- Team formed – July 2007
- Scope refined – September through December 2007
 - Amplifying questions
 - Desk scan
 - Itinerary
- Scan – April 2008
- Reassembly, Finalize Scan Technology Implementation Plan (STIP) – July 2008
- Final report published early Spring 2009



Host Countries

■ Sweden



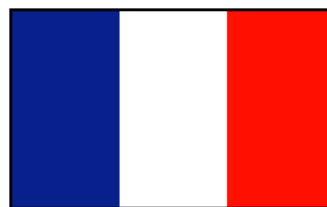
■ Netherlands



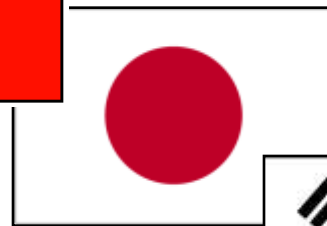
■ Belgium (European Commission)



■ France



■ Japan



■ South Korea



Primary Themes

- Theme #1 – Setting the Research Agenda
- Theme #2 – Partnership Models and Joint Research Activities
- Theme #3 – Conduct of Research: Performance, Quality, and Value
- Theme #4 – Delivery: Getting Research Results into Widespread Practice



Findings

Common Values

- Transportation research, quality of life, and a robust national economy are inseparable.
- Sustainable growth and employment result from a balance between research, education and innovation.
- Building leadership on a knowledge-based society is considered essential for long-term success.



Findings

Theme #1 Setting the Research Agenda

Determining where to put emphasis and effort to solve current and emerging issues on local, national, and international levels



Setting the Research Agenda

- Strategic and policy driven agendas for transportation research are the norm.

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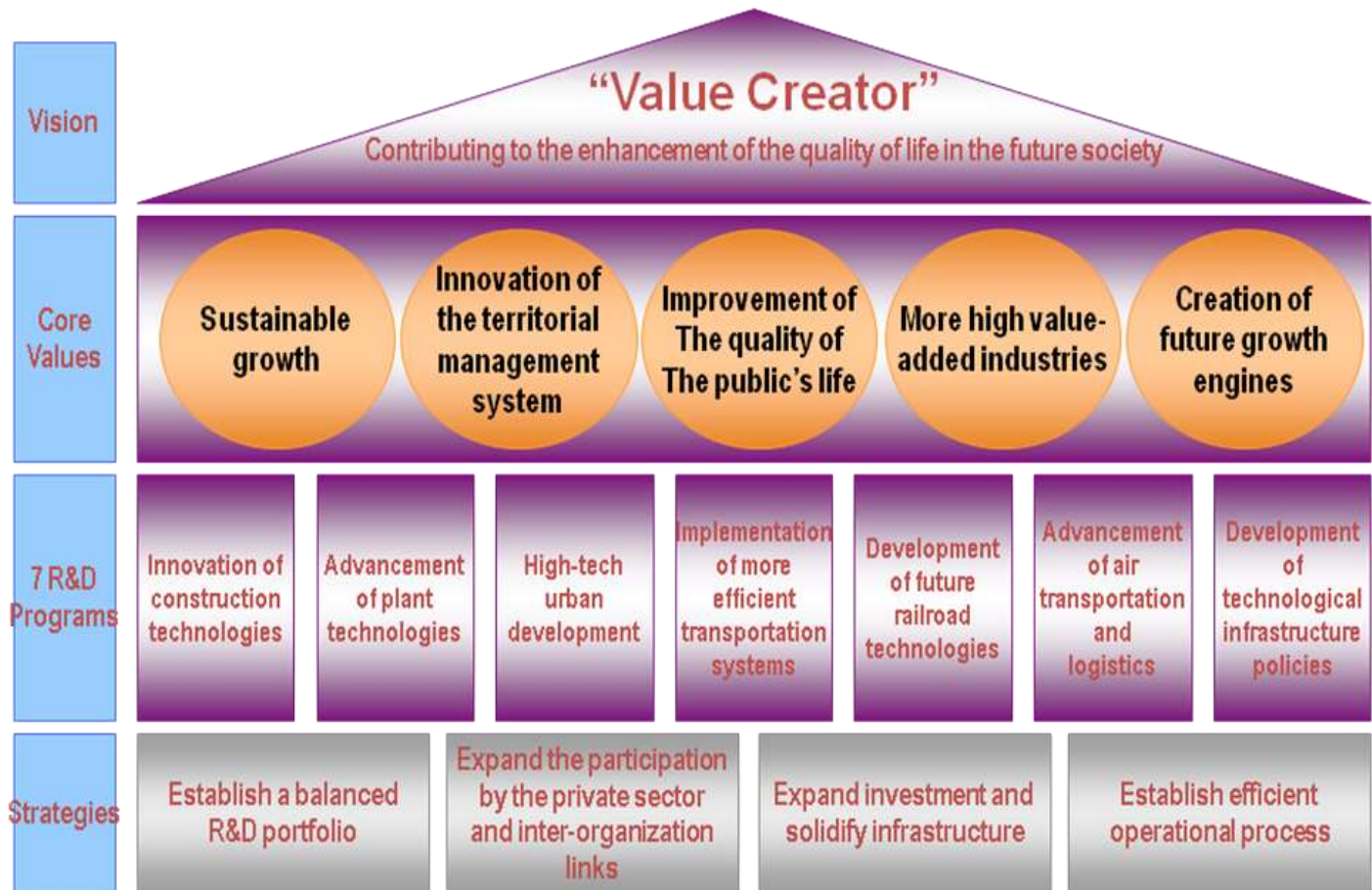
Setting the Research Agenda

- Strategic and policy driven agendas for transportation research are the norm.
- Agendas include comprehensive transportation research roadmaps.
 - Korean Institute for Construction
 - French Research Laboratory for Public Works



Setting the Research Agenda

KICTEP – Vision and Core Values





Setting the Research Agenda

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- Agendas include comprehensive transportation research roadmaps.
 - Korean Institute for Construction
 - French Research Laboratory for Public Works
- Transportation research agendas are aligned with a common vision and many topics are being addressed by cross ministerial R&D activities.



Findings

Theme #2 Partnership Models and Joint Research Activities

Methods for cooperation that enhance technical capacity and increase resources for research



Partnership Models and Joint Research Activities

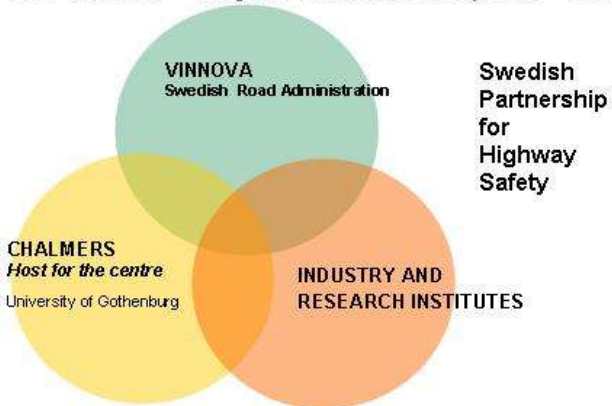
- Partnership and joint research efforts are essential, ubiquitous and actively promoted.

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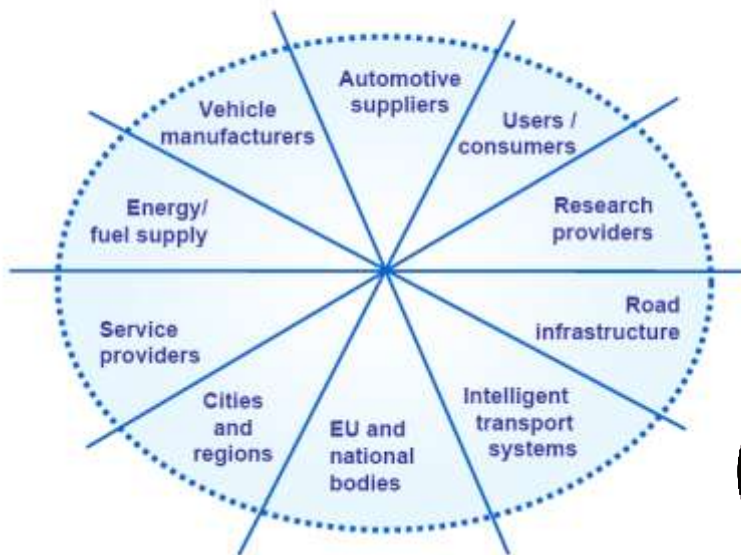


22 Partners - 10 year commitment (2006 – 2016)

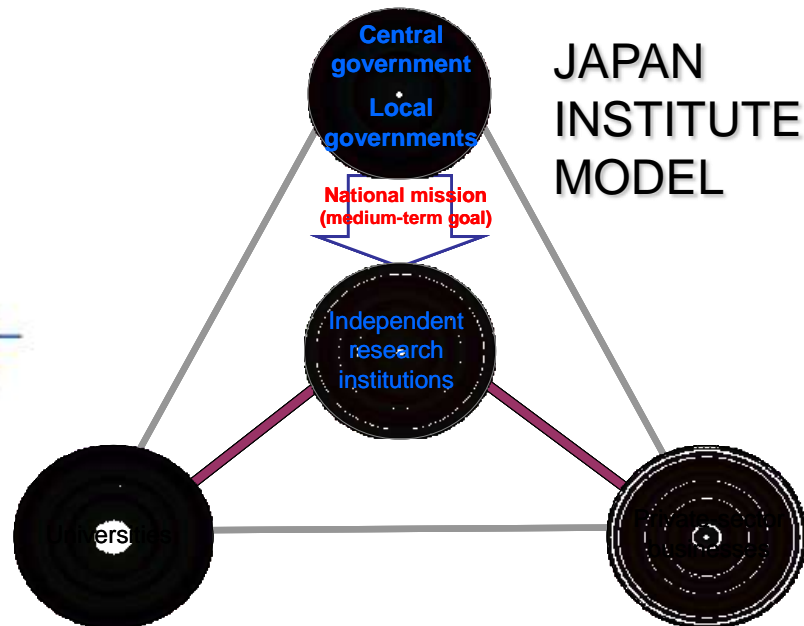


SAFER

ERTRAC Members



JAPAN INSTITUTES MODEL





Partnership Models and Joint Research Activities

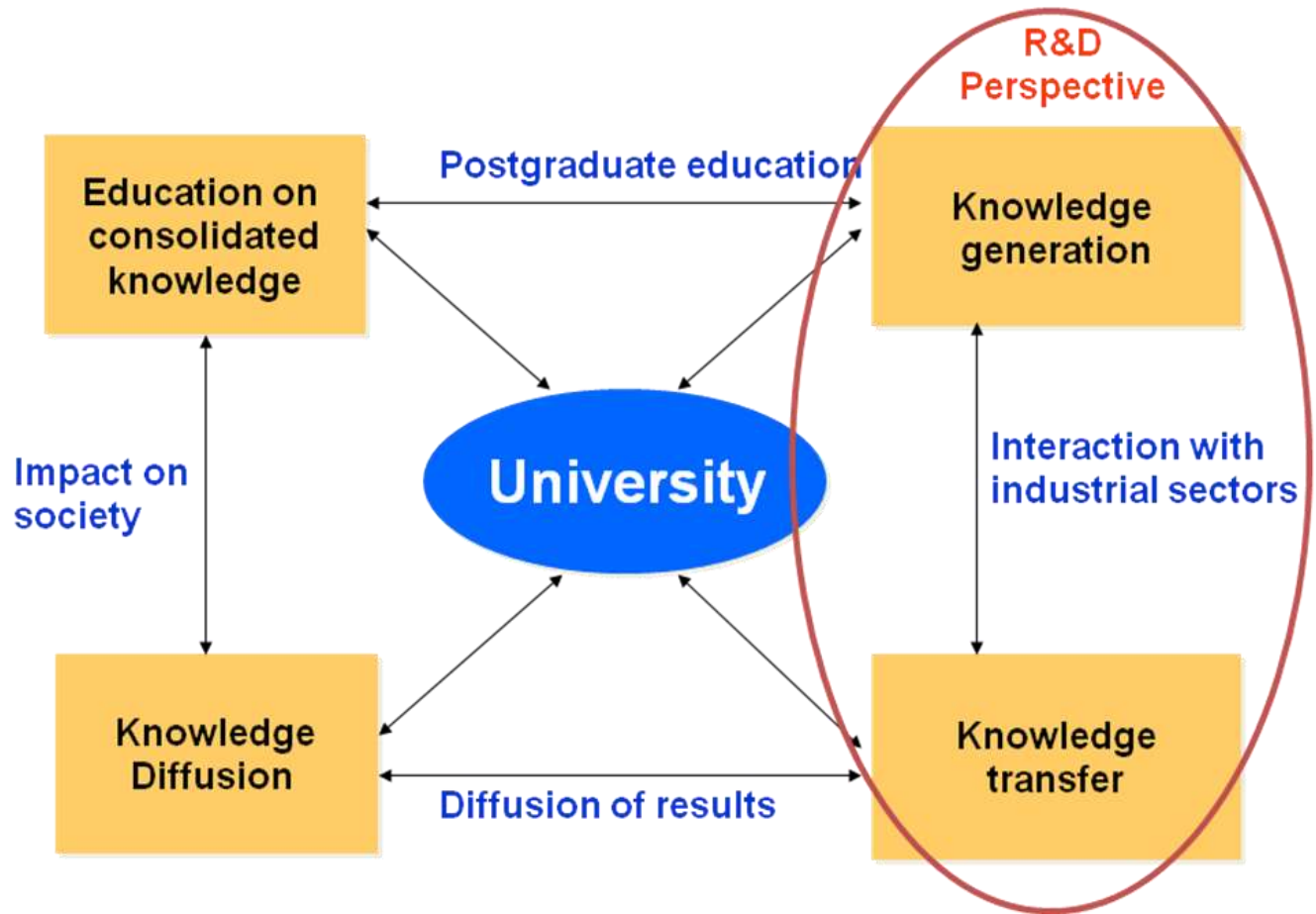
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Partnership Models and Joint Research Activities

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- Collaboration activities begin earlier than they generally do in the U.S.
- Academic partners are integrally involved.

Partnership Models and Joint Research Activities

Politecnica – University Missions





Findings

Theme #3 Conduct of Research: Performance, Quality, and Value

Tools and processes to measure the performance, quality, and value of research programs and projects



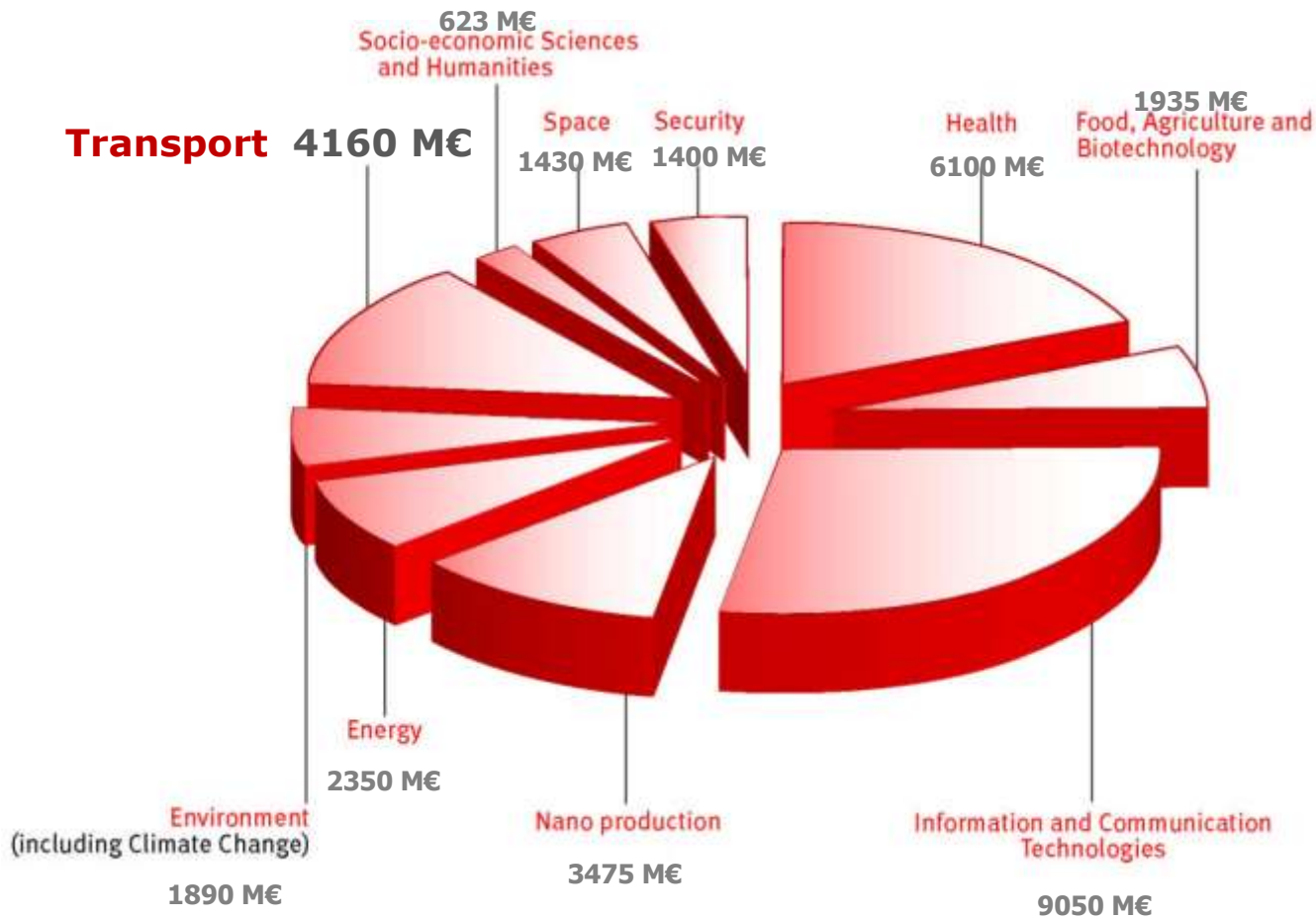
Conduct of Research: Performance, Quality, and Value

- Funding appears to be substantially greater than U.S. investments for comparable activities.



FP7 Cooperation: 2007-2013 Budget

10 Themes



Total budget: 32413 million €

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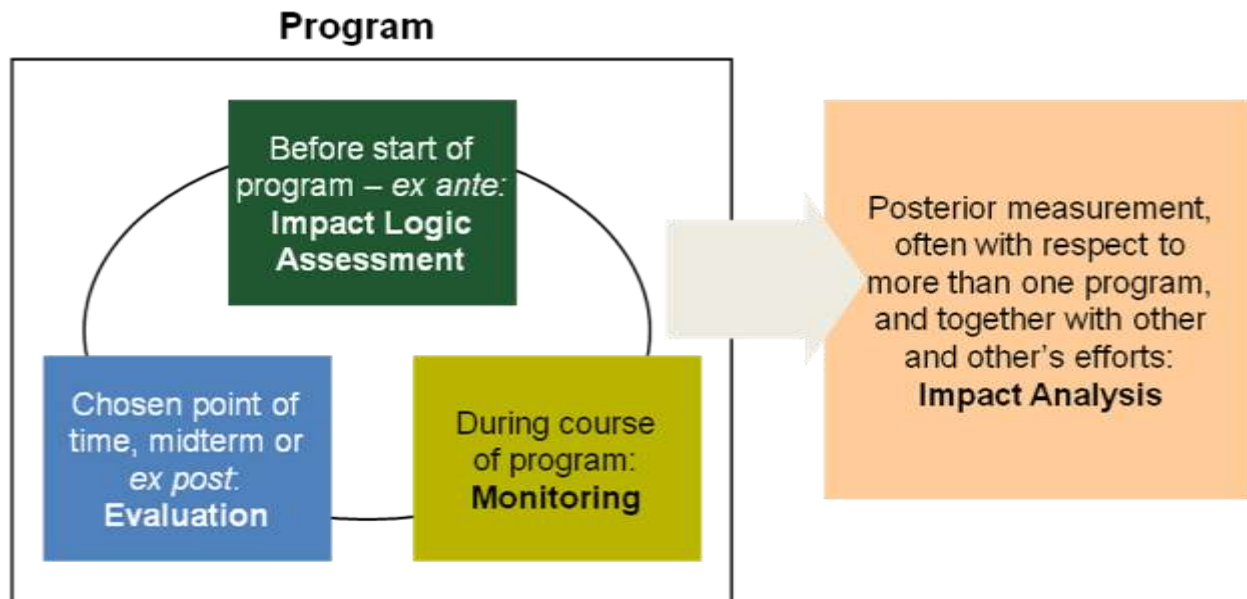
Conduct of Research: Performance, Quality, and Value

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- Quantifying the benefits of research results is a continuing challenge.



Conduct of Research: Performance, Quality, and Value

VINNOVA





Conduct of Research: Performance, Quality, and Value

- Funding appears to be substantially greater than U.S. investments for comparable activities.
- Quantifying the benefits of research results is a continuing challenge.
- **Transportation R&D is accepted as a valuable contribution for the national or societal good.**



Findings

Theme #4 Delivery: Getting Research Results into Widespread Practice

Keys to enhancing the effectiveness of deployment and increasing the use of research results

Delivery: Getting the Research Results into Widespread Practice

- Common intellectual property rights (IPR) practices facilitate the delivery of research results.



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- There are many research forums for international sharing of research results that are not currently apparent to U.S. research managers.



Delivery: Getting the Research Results into Widespread Practice

Establishing an R&D system to make sure R&D results are given back to society (Japan - MLIT Basic Technology Plan)

Define a direction and establish an implementation system

Technology roadmapping through industry-academia-government cooperation
Promote establishment of joint (industry-academia-government) research systems by, for example, **create opportunities for exchanging technical information**

Establishment of a foundation for research and development

Give incentives for R&D

Augmenting financial assistance i.e., **competitive funds** to the private sector
Augment institutional assistance for public procurement -- **procure comprehensive services including technology development and construction**

Vigorous promotion of management

Utilize and disseminate useful new technologies

Promote widespread use -- **provide subsidies for the introduction of new technologies by users**
Establish & improve new technology utilization system to encourage owners to place orders for new technologies
Vigorously promote **int'l standardization & int'l dissemination** through concerted effort of industry, academia & gov't

Implementing intellectual property strategies by **protecting and making effective use of useful technologies**

Appropriate and flexible research management system

Give back discernible research results to society

Maintain and raise the level of world-leading technologies and disseminating them in foreign markets



Implementable Actions – the Critical Outcomes

- Implementation strategies
 - Address major themes of inquiry
 - Represent conclusions for application of what was learned
 - Provide a means to allow the lessons learned to affect change



Implementation Strategies

- 1 Build international relationships and cooperation in transportation research to achieve global goals and leverage scarce resources.





Implementation Strategies

- 2 Promote the development and implementation of a national, coordinated, multi-modal transportation research agenda.



Implementation Strategies

- 3 Strengthen the innovation process by examining international research institutes and other models of collaboration to link knowledge creation and knowledge application.





Implementation Strategies

- 4 Investigate the effects, application, and future potentials for intellectual property rights in the U.S. and abroad.



Implementation Strategies

- 5 Integrate and enhance accessible Internet forums, portals, or other tools to coordinate information and knowledge resources at a global level.





Implementation Strategies

- 6 Promote a systematic and consistent practice for continuous research program evaluation and improvement.



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Questions?



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