

**TRIENNIAL STRATEGIC PLAN**  
**Draft - January 2018**  
Intercity Passenger Rail Committee (AR010)

**MISSION**

The mission of the Transportation Research Board (TRB) Intercity Passenger Rail Committee is to advance the knowledge and understanding of the role of Intercity and High-Speed Passenger rail in global transportation and its ability to provide for economic, environmental, and socially sustainable solutions to mobility challenges.

**SCOPE**

The scope of the Intercity Passenger Rail Committee is to identify and foster research programs that enhance the planning and implementation of Intercity Passenger Rail systems, with emphasis on the full range of high-speed systems. High Speed Rail (HSR) systems encompass the concepts, technology, infrastructure, operations, and vehicles required for a complete rail system.

The research areas include: demand analysis, financial considerations, economic impacts (including consideration of user and social benefits), and institutional arrangements including public-private partnerships. The research should also address impacts on other rail operations, coordination with other modes, rail-highway interfaces, corridor versus system concerns, technology assessment, environmental impacts, and implementation strategies.

**FUTURE OUTLOOK STATEMENT**

Intercity and High-Speed Rail systems continue to make advances, with rail networks expanding worldwide. Surface transportation investment in the United States continues to lag in comparison to other parts of the developed world. Changing patterns of work and leisure have increased the value and importance of access to mobile and internet-connected devices during travel, leading many to seek alternatives to driving that allow for continuous connectivity and productive work while in motion.

Highway and air travel conditions continue to worsen in many intercity corridors, with levels of service deteriorating due to system congestion and high demand. Air travel faces increased congestion, weather delays and security protocols have added significant travel time and cost to the air travel experience. Some large airport hubs are approaching capacity limits, while the environmental and cost elements of building new or expanded airport facilities are extremely challenging. These trends contribute to a resurgence of interest in Intercity Passenger rail as a complement to the traditional U.S. emphasis on highways and air travel.

The Fixing America's Surface Transportation Act of 2015, or FAST Act (P.L. 114-94), was the first long-term Federal transportation bill in more than 10 years. The FAST Act authorized \$305 billion over fiscal years 2016 through 2020 for the Department of Transportation's rail, highway, motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, research, technology and statistics programs. The

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FAST Act also marked the first time intercity passenger rail programs have been included in a comprehensive, multimodal surface transportation authorization bill. A total of \$2.2 Billion is authorized for Fiscal Years 2016 – 2020 for rail funding in the FAST Act through three main programs. Section 11102 (Consolidated Rail Infrastructure and Safety Improvements) authorizes \$1.1 billion for grants for projects that aim to enhance safety, efficiency, and reliability of passenger and freight rail transportation systems. There is broad project eligibility under Section 11102. Some eligible activities include deployment of railroad safety technology including positive train control systems, certain workforce development and training programs, rail-related research initiatives, rail line relocation and improvement projects, and regional rail and corridor service development planning.

Section 11103 (Federal-State Partnership for State of Good Repair) authorizes \$997 million for grants for capital projects to replace or rehabilitate qualified railroad assets and ultimately reduce the current state of good repair backlog. Section 11104 (Restoration and Enhancement Grants) authorizes \$20 million each year from FY2016 – 2020 for operating assistance to initiate, restore, or enhance intercity passenger rail service. Large capital project grant recipients must now: demonstrate that required funding for the applicable non-federal share is committed, submit a financial plan that identifies sources for required non-federal funding for subsequent segments of the current project, and demonstrate that the current project will result in an operationally independently segment, transportation facility, or transportation asset.

The growth of passenger rail programs in the U.S. has brought into focus many unresolved technical, policy, and economic issues that are peculiar to the North American environment for development of such services:

- The need to share rights-of-way and, in some cases, rail tracks with rail freight carriers. Associated issues include: the need to define the speeds and frequency of passenger rail operations where shared track is no longer appropriate; interoperability of new systems; interface of new equipment and operations with new and existing stations, and the evolving regulatory framework supporting these operating arrangements.
- The need to choose between competing technologies, speeds and service levels in launching new services between city pairs where no rail passenger transportation exists today.
- The need to develop economic models and policies that safeguard public investment in public services over privately-owned and controlled properties.
- The need to design and fund large-scale corridor capacity improvements while leveraging the advantages of an emerging and entirely new signaling and train control architecture.
- A recognition that mode-specific planning and funding of transportation investments is sub-optimal and should be replaced, over time, with a multi-modal approach that tests alternative strategies while accounting for direct and indirect impacts on transportation users, the environment, and competitiveness.

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**AR010 COMMITTEE IDENTIFIED ISSUES**

The AR010 Committee has identified the following research topics:

Global Issues

1. Evaluation of management and planning practices to deliver value in Intercity Passenger Rail operations.
2. Identify industry best practices for management and maintenance of mixed public and private capital investments.
3. Identify and promote best practices for surface transportation systems integration, reducing barriers to provide efficient, attractive travel choices that leverage the advantages of each transportation mode.
4. Identify robust quantification of indirect impacts of Intercity Passenger rail services such as environmental, land use and energy consumption effects.

United States Issues

1. Developing reliable and robust approaches to ridership modeling for consideration by local, state, and federal agencies.
2. Identification of appropriate value capture and Public Private Partnerships (P<sup>3</sup>) structures to complement scarce public resources for new intercity passenger rail systems development.
3. Leveraging emerging railway signaling and operations control technologies to gain corridor capacity and improve service for both passenger, and freight operations.
4. Identifying the limits of shared-use track operations for mixed passenger and freight rail services.
5. Identifying complementary uses of dedicated HSR alignments such as franchised express freight services, leveraging the diurnal use pattern that characterizes most intercity passenger rail corridors.

**COMMITTEE PLAN GOALS**

1. Facilitate ongoing research into the financial, managerial, organizational, and policy dynamics of global intercity passenger rail operations, in the Americas, Asia, and Europe.
2. Communicate and disseminate the insight from research findings that identifies the challenges faced by passenger rail carriers and highlights future opportunities.
3. Identify gaps in the research for performance measurement of the current Intercity Passenger Rail system and develop research programs to address those gaps.
4. Assess the skills and competencies needed for managing Intercity Passenger rail's future development and identify the knowledge, skills and abilities for future rail professionals.
5. Demonstrate the value that effective Intercity Passenger rail operations can offer

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to an intermodal transportation system, and to society as a whole.

**AR010 COMMITTEE ACTION PLAN**

Strategy 1:

Identify Intercity Passenger rail research needs and develop the syntheses for Research Problem Statements.

Annual Actions:

- Task the Research Sub-Committee to lead the research efforts of the Committee.
- Advance research problem statements through the TRB process.
- Develop Cooperative Research Programs related to Intercity Passenger rail.
- Work with AASHTO and APTA on cooperative research programs.
- Develop a compendium of research activities.
- Coordinate research with other transportation professional organizations.
- Report progress and status at the TRB Annual Meeting to the Committee.

Strategy 2:

Solicit papers on Intercity Passenger Rail systems for TRB publication and presentation.

Annual Actions:

- Task the Research Sub-Committee to lead the research efforts of the Committee.
- Solicit committee members for paper topics to be considered for annual call for papers, choose the topics, and issue an annual call for papers by March.
- Assign committee members and friends to review submitted papers.
- Choose papers and posters for presentation at the Annual Meeting.

Strategy 3:

Communicate research findings, best practices, and related information on Intercity Passenger Rail systems, using a broad range of information activities and peer exchanges.

Annual Actions:

- Maintain the Intercity Passenger Rail (AR010) website.
- Encourage participation in the AR010 LinkedIn blog.
- Publish real-time news and updates via the AR010 Committee website.
- Identify opportunities to submit newsletter items to other committees and organizations and to publish or link their information on the AR010 website.
- Disseminate relevant TRB information to the Committee.

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- Maintain a comprehensive library of Intercity Passenger rail documents.

Strategy 4:

Sponsor TRB sessions on Intercity Passenger Rail systems at the Annual and Mid-Year meetings and create content and participate in TRB webinars meetings to share knowledge in communities of practice.

Annual Actions:

Solicit topics for annual meeting conference sessions.

- Select topics and develop annual meeting sessions.
- Explore poster session topics and develop sessions.
- Develop presentations at committee meetings.
- Coordinate with related TRB Committees to co-sponsor events, webinars, and knowledge exchange sessions.
- Incorporate intercity passenger rail research into Mid-Year meeting sessions
- Liaise with other rail organizations including American Association of State Highway & Transportation Officials (AASHTO), American Public Transportation Association (APTA), & American Association of Railroads (AAR).

Strategy 5:

Sponsor and actively participate in special events that highlight rail performance measurement and disseminate findings.

Annual Actions:

- Explore opportunities for special events that focus on Intercity Passenger rail systems, assign a working group to plan and implement each special event.
- Continue to co-sponsor Bi-Annual rail caucuses for professional networking and to evaluate recent organizational and technological advances in particular regions.

Strategy 6:

- Promote participation in committee activities with a diverse membership and a large network of friends, with representation from all modes of transportation including passenger and freight rail, and a variety of public and private organizations.

Annual Actions:

- Review committee membership and rotate members as needed.
- Expand E-Mail distribution list to add friends of committee.