



OFFICE OF RESEARCH & DEVELOPMENT

**2012** R&D  
REVIEW

# **PRIIA Section 305: Next-Generation Equipment Committee (NGEC)**



U.S. Department  
of Transportation  
**Federal Railroad  
Administration**

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# Stakeholders & Project Partners

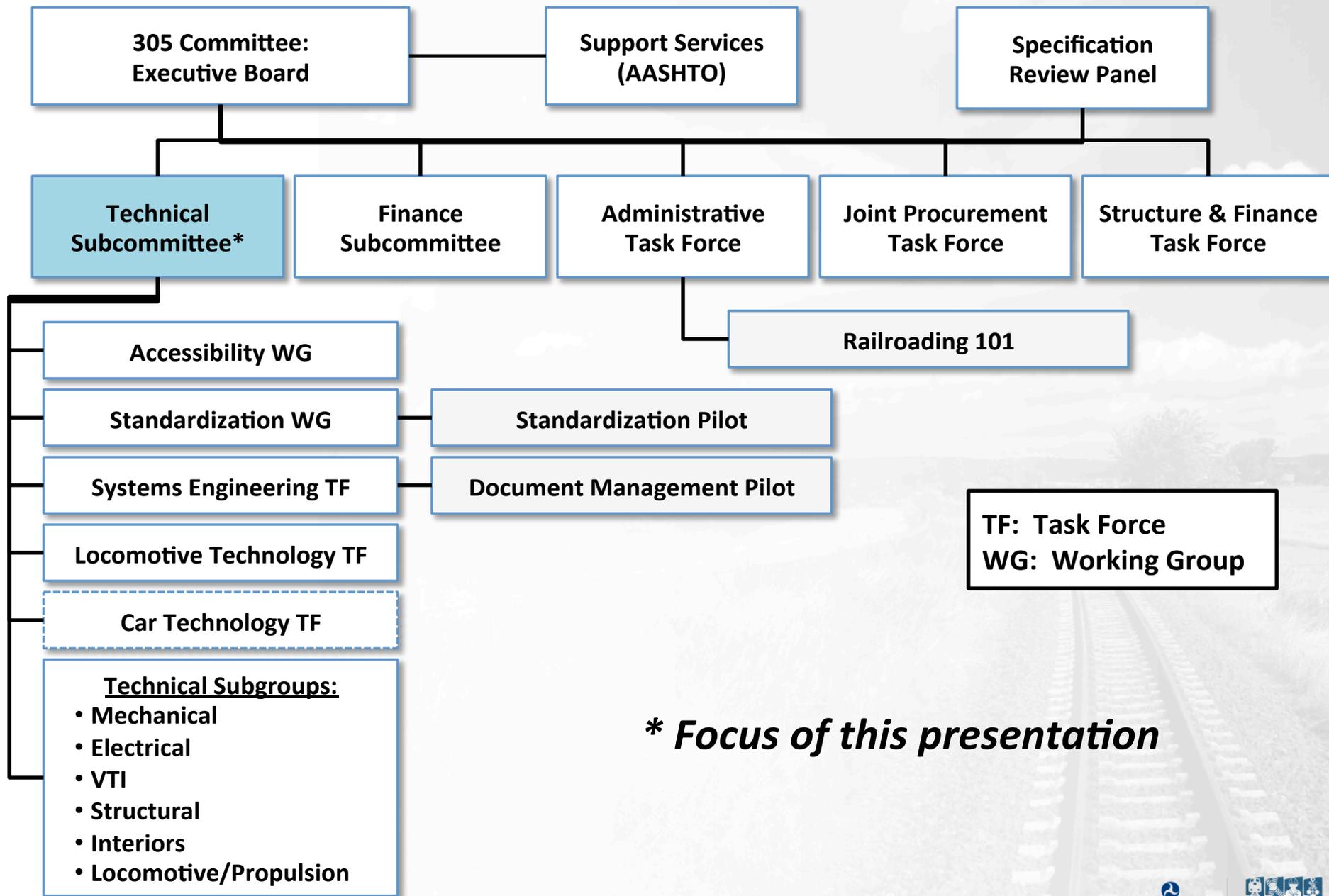


## States:

- California
- Illinois
- Iowa
- Louisiana
- Michigan
- Missouri
- New York
- North Carolina
- Oklahoma
- Washington
- Wisconsin
- Amtrak
- The American Association of State Highway and Transportation Officials (AASHTO)
- Oregon State University
- Sharma & Associates

# Motivation for Project

- Passenger Rail Investment and Improvement Act (PRIIA) of 2008 mandate
- NGEC to design, develop specifications for, and procure standardized next-generation corridor equipment
- Amtrak and States may enter into agreements for the funding, creation and management of the fleet
- Administration's 80% goal for access to high-speed rail
- Ridership continues to increase on most corridors
- Alternatives to highway and air will relieve congestion
- NGEC activities will develop standardized pool of high-speed equipment
- Revitalization of passenger railcar manufacturing industry



TF: Task Force  
 WG: Working Group

*\* Focus of this presentation*

# How the NGECC works

- TECHNICAL SUBCOMMITTEE:
  - NGECC Executive Board identifies need
  - Technical Subgroups rely on industry volunteers
  - Draft specifications are vetted through the technical community and revised periodically

# Benefits & Disadvantages

## Benefits

- Collaboration
- Knowledgeable volunteers with technical niche savvy lead to well-conceived specifications
- Industry partners involved from start – no surprises in specification at Request for Proposal (RFP) time
- Specifications developed intended to be manufacturer-neutral

## Disadvantages

- Large group (>200) with diverse interests – many needs to be satisfied
- Competitiveness a possibility but has not yet been manifested
- All processes need to be created from scratch:
  - Organization generally
  - Specification development and revision
  - Procurement documents (states' issues)

# US DOT Priorities

## Buy America

- PRIIA 305 funds distributed as grants to successful state proposers
- PRIIA funding is subject to the Buy America provision of 49 U.S.C. § 24405(a)
- Requirement for 100% domestic content is challenging
- Grant program administered using FRA guidance currently; rulemaking is planned
- Informal survey conducted of 9 car and locomotive manufacturers to develop data to inform these processes
- Lack of sustained demand for equipment (orders) impede progress toward revitalization of US passenger railcar manufacturing base
- DOT/FRA partnering with National Institute of Standards & Technology/ Manufacturing Extension Partnership (NIST/MEP) and Defense Production Act Committee (DPAC)

# US DOT Priorities (cont'd)

## Standardization

- Important concept for interoperable national network
- Will reduce life cycle costs of equipment (fewer spare parts, ability to repair “away from home”, more uniform training requirements...)
- Strong manufacturer presence in Technical Subcommittee has stalled ability to progress standardization at technical specification level
- Revised strategy invokes standardization at the carbuilder level by requiring “standardization plan” as part of proposal
- Standardization will enable larger, more consistent orders

# US DOT Priorities (cont'd)

## Americans with Disability Act (ADA) enhancements

- Applicable ADA regulations put into effect in 1990
- Much has changed since then
- Mobility devices have increased in size and weight
- NGENC specifications acknowledge this through incremental “enhancements” resulting in requirements which exceed regulatory requirements
  - Mobility aid lift capacity increased to 800 lbs
  - Mobility aid footprint increased
  - Vestibule width increased to accommodate turning radius
- FRA leveraging expertise of project partners at Oregon State University

# Accomplishments

- 5 technical specifications developed
- 1 under development
- 1 active procurement for bi-level coaches
- All equipment to operate at up to 125 mph
- All equipment to incorporate modern safety features
- Rail Supply Chain Connectivity outreach with Nation Institute of Standards and Technology/Manufacturing Extensions Program (NIST/MEP)
- RFI for diesel-electric locomotives Coming Soon