

**ITS Professional Capacity Building
Program: Changing the way we think about
ITS Education and Training**

October 2012

ITS Joint Program Office,
U.S. Department of Transportation

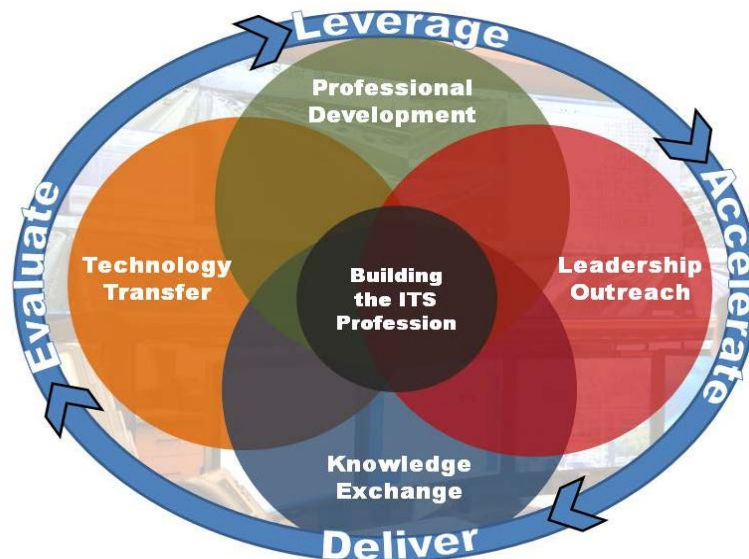
ITS Professional Capacity Building Program

- Established by congressional legislation to build and sustain a capable and technically proficient ITS workforce
- Provides comprehensive, accessible, flexible ITS learning for the transportation industry
- Focused on transportation professionals - develop their knowledge, skills, and abilities while furthering career paths



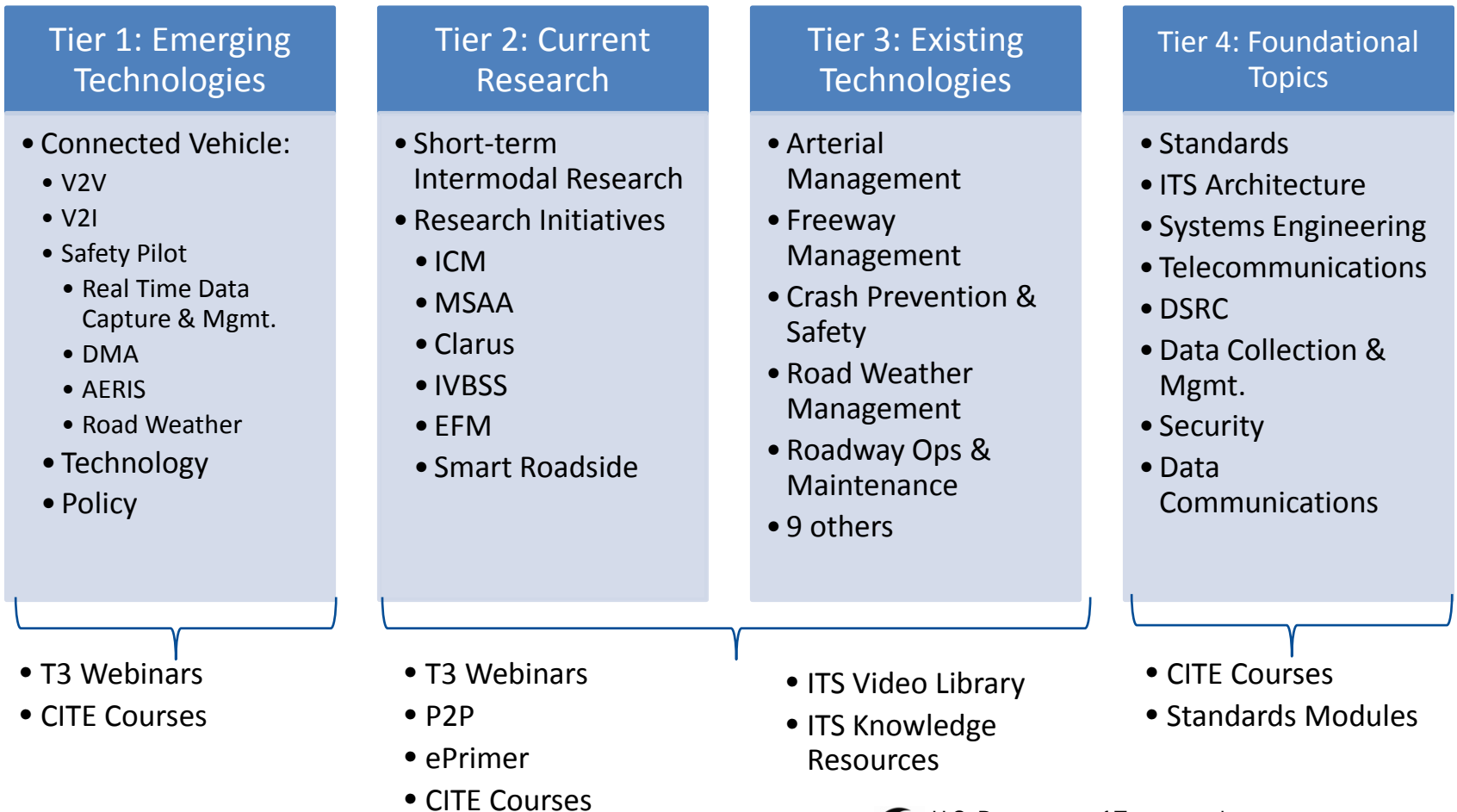
Strategic Plan: 2011-2014

- Focus on new ITS content, partnerships, and cost effective delivery methods:
 - eLearning – ITS Standards Training Modules and CITE courses
 - ePrimer and PIARC RNO-ITS Web Resource
 - T3 webinars and ITS America State Chapter short courses
 - Other PCB Activities: Video Library, Peer-to-Peer, University Case Studies



ITS PCB Program Content

Targeted delivery, through strategic use of partners:



Partnerships

- CITE
- PIARC
- ITE
- ITS America
- NTI and NHI
- Universities
- Others?



eLearning

ITS Standards Training Program

- Free online ITS standards training:
 - 18 modules – 1.5 hours each
 - Provide skills needed to procure, implement, and operate ITS standards-based devices and equipment
 - Targeted to state and local highway agencies and transit agencies staff
 - Consultants, system designers and integrators, and system testers are also viewing
 - 200 participants as of October, 2012
- Additional 19 modules under development through 2012
- Outreach and Awareness



eLearning

- Signed agreement with University of Maryland's CITE to offer online courses for FREE to the public sector:
 - 39 individual short courses
 - Blended courses (combined instructor-led and online)
 - Full-semester programs
 - Certificate programs – 6 short courses bundled by topic area
- Updates of Road Weather Management (Certificate), Safety, Telecommunications and Procurement courses
- Developing new courses in Performance Management



Other Online PCB Activities

T3 webinars

- Online seminars provided free of charge by ITS PCB program
- Past webinars available through T3 archive
- Upcoming T3s:
 - Keeping Risks in Check: Applying the Updated FHWA Model Systems Engineering Document to Adaptive Signal Control System (ASCI) Implementation **October 31, 2012**
 - Towards Optimization: Transit Asset Management Strategies **November 8, 2012**
- Register at: <http://www.pcb.its.dot.gov/>



Peer-to-Peer Program

- P2Ps provides short term technical assistance to agencies facing ITS planning, procurement, deployment, and operational challenges



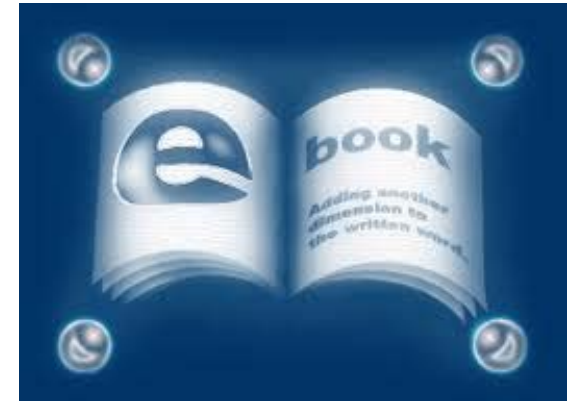
ITS ePrimer / PIARC RNO-ITS Web Resource

ePrimer

- Goal is for ITS content available entirely online, with multi-media examples by 2013.
- Technical editor and authors on board
- Collaborating with ITE, APTA and ITS America

PIARC RNO-ITS Web Resource

- Update to RNO & ITS Handbooks, combined in RNO-ITS web resource
 - To incorporate case studies produced by TC working groups
 - Provide focus on emerging economies
- US DOT contracting with ITS America for Technical Editor to update ITS content of website.
- PIARC Technical Committee responsible for RNO content.



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University Strategy



- Top three challenges for ITS Education:
 1. Funding needed for development of new (ITS) programs
 2. Outdated or unavailable ITS textbooks
 3. Collaboration across academic departments & with Public-Private sectors
- Develop ITS ePrimer (strong academic interest)
- Develop interactive ITS Case Studies
 - Transit
 - Congestion
 - Regional Architecture (with National Architecture team)
- Enhance existing program activities and products to address the university audience and student/faculty needs
 - Standards Training
 - T3s
 - Peer-to-Peer events
 - Marketing / Outreach



What we've learned:

- Develop online resources and share them for free
- Coordinate so we do not spend precious program dollars on the same subject matter
- Identify and fill program gaps, e.g. standards training
- Go where your audience is going



On the Horizon: Massive Open Online Courses (MOOCs)

- A course with large scale participation and open access via the web (Wikipedia definition)
 - Open access - anyone can take the course
 - Scalability – while traditional courses depend upon a small ratio of students to teacher, MOOC are designed to support an indefinite number of participants
- Does not offer credits awarded to paying students at schools. However, assessment of learning may be done for certification.
- Examples: Khan Academy, Harvard/MIT edX, Udacity

