

The Slow Race:

Implementation of Innovations in Materials, Design, and Construction within DOT Organizations

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Overview

- Implementation and innovation
- Why do DOTs lag?
- Barriers to implementation or innovation
- Potential solutions
- Closing comments



Implementation

- “the act of implementing, or putting into effect”
- Implement-“to put into effect according to or by means of definite plan or procedure”
- Innovation – “the act of innovating, introduction of new things or methods”
- For simplicity, we will call it “doing something NEW or DIFFERENT”



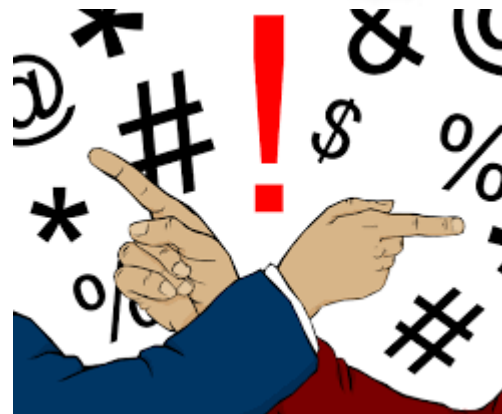
DOTs Focus

- Planning
- Construction
- Maintenance
- Operations
- Research*
- ITS
- Transit
- Others



Why do DOTs Lag?

- On average it takes 20 years to implement something new or different within DOT!
- Culture
- Laws
- Policies
- Politics
- Industry pushback



Barriers

- Implementation or innovation traditionally not seen as a priority
 - Conservative culture
 - “not my job”
 - “not my neck on the line”
 - “you’re not the boss of me”
 - ‘30 year’ mantra
 - Specifications
 - Cost(s)
 - Siloed



DOTs “Changing” Culture

- STIC and EDC
 - FHWA and AASHTO starting to push implementation and innovation within DOTs
 - \$\$\$ is provided as an incentive to coax DOTs to consider an innovation
 - Have a Departmental champion



Potential Solutions

- Educate students
 - ▣ DOT turnover
 - ▣ Large leaps in adopting innovations
 - ▣ Difficult to do properly
- Incentivize
 - ▣ \$ to employees to “save” money



Potential Solutions

- Continuing education
- Better specifications
 - Generic to allow for competition
- Remove “silos”
 - Force work and collaboration across different aspects of the DOT agency



Closing Comments

- Success looks and sounds like:
 - Longer lasting
 - Less costly
 - Faster construction



Closing Comments

- Best achieved
 - ▣ Culture of innovation
 - Top down
 - ▣ Industry push
 - ▣ Education is key



Questions

