

Vehicle to Infrastructure Deployment Coalition V2I DC

Update Based on the Initial Executive Committee Meeting
Results

September 2015



U.S. Department of Transportation
Federal Highway Administration



Topics

- Update on the V2I DC Executive Committee (V2I DC EC)
- Relationship between V2I DC EC and the Connected Vehicle Executive Leadership Team (CV ELT)
- Focus Areas and Goals for the V2I DC

V2I DC Executive Committee (V2I DC EC)

- Inaugural meeting on September 10, 2015
- Key outcomes included:
 - Clarified the role of the Executive Committee
 - Defined initial focus areas for the V2I DC
 - Defined an initial set of goals for the V2I DC
 - Discussed a preliminary Business Plan for ongoing V2I DC efforts beyond June 2016 (still in development)

Role of the V2I DC Executive Committee (V2I DC EC)

1. Define the primary focus areas for the entire V2I DC;
2. Identify goals that the V2I DC can use to measure progress towards accomplishing the focus areas;
3. Support the work of the TWGs by offering input to the processes and review of work completed; and
4. Elevate the results of coalition technical work to the Connected Vehicle Executive Leadership Team (ELT) for policy level considerations.



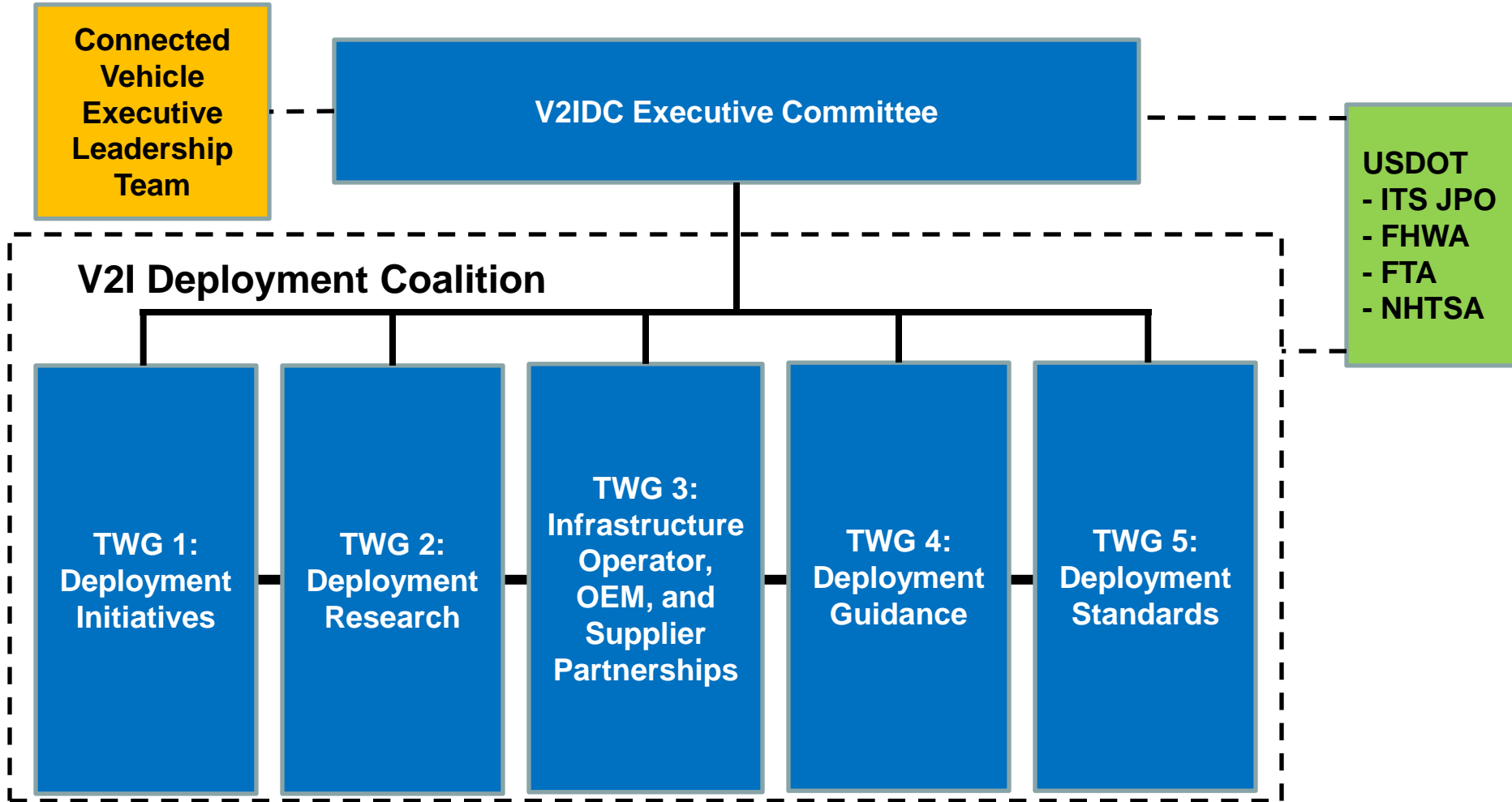
Relationship Between V2I DC EC and the CV ELT



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V2I Deployment Coalition Structure



AASHTO CV ELT

- Meeting since 2005:
 - Provide strategic guidance,
 - Recommend policies and national deployment approaches,
 - Provide critical program reviews,
 - Assess the risks associated with deployment,
 - Commit the resources of their organizations,
 - Educate their organizations and supporting institutions.



CV ELT and V2I DC EC

**AASHTO CV
Executive Leadership Team
(CV ELT)**

Recommend Policies &
Deployment Approaches

**Vehicle to Infrastructure
Deployment Coalition
Executive Committee
(V2I DC EC)**

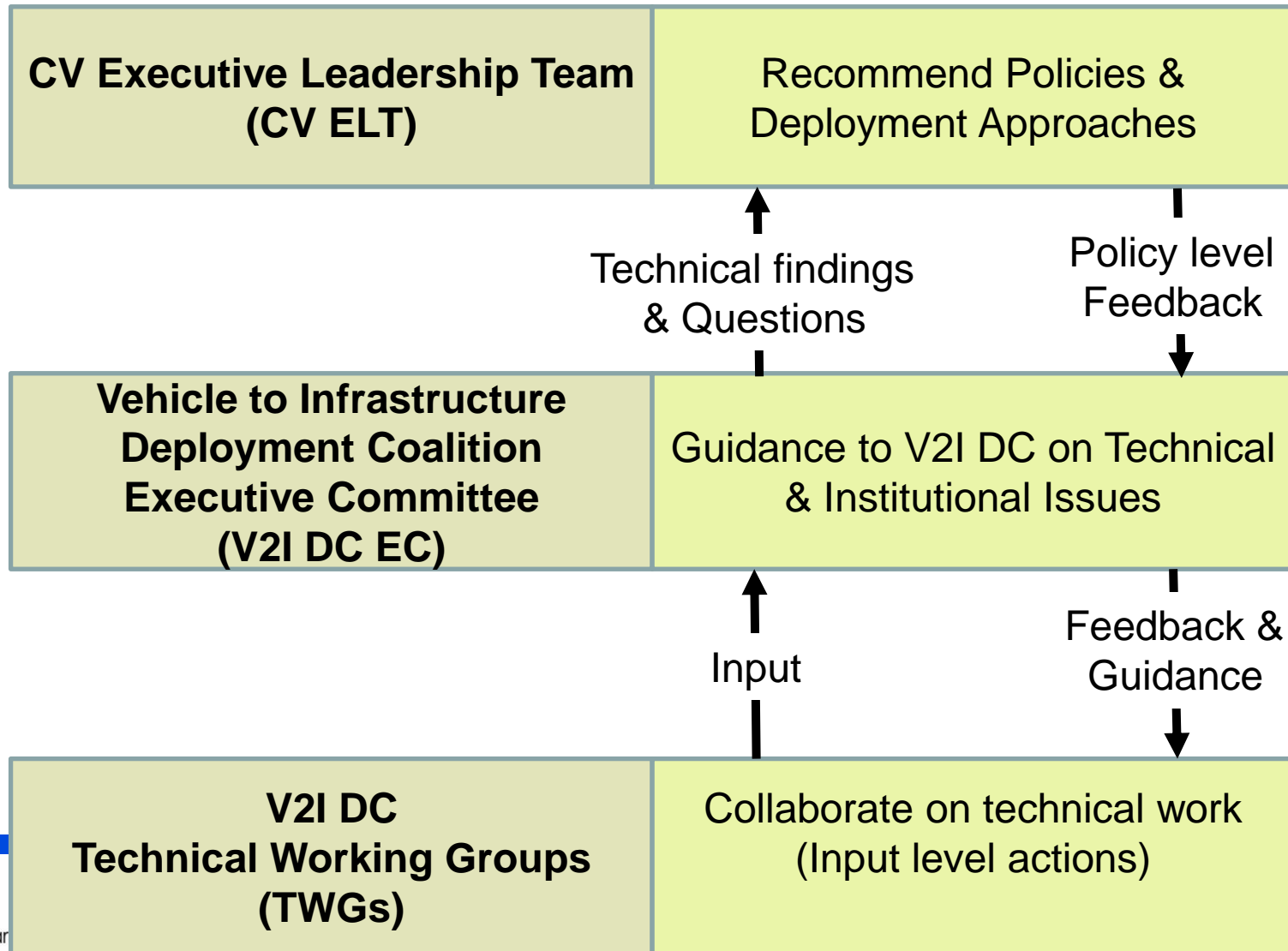
Guidance to V2I DC on Technical
& Institutional Issues

**V2I DC
Technical Working Groups
(TWGs)**

Collaborate on technical work
(Input level actions)



CV ELT and V2I DC EC



Focus Areas and Goals for the V2I DC



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Role of the V2I DC

At the September V2I DC EC meeting, the group identified the V2I DC role as:

“To help accelerate consistent and effective deployments of Connected Vehicle technologies that address passenger vehicles, freight, and transit operations in both urban and rural areas.”

V2I DC Initial Focus Areas and Goals

- To help accelerate V2I deployments related to:
 - Intersections (signalized and non-signalized)
 - End of queue warnings
 - Work zone management
 - Curve warning systems

Initial 18 Month Activities to Support Focus Areas

- Informing and educating Connected Vehicle stakeholders on available tools to assist them in deploying V2I technologies
- Researching and defining a set of V2I issues and identifying needed action plans to address the issues, as they relate to the initial four goals/focus areas
- Facilitating discussions between OEMs and infrastructure owners & operators to enable both parties to understand the goals and objectives of the other party



TWG Work Plans

- Should be adjusted as needed to focus on the initial focus areas and goals
- Should continue to focus on researching and defining the issues to identify actions that will address the issues over the coming years



TWG 3: Work Plan

Activity

Activity 1: Identify Application Value and Costs

Activity 2: Identify Data Issues

Activity 3: Identify Common Goals

Tasks

1.1: Compile list of apps

1.2: Define value

1.3: Identify value

1.4: Identify costs

2.1: Define data

2.2: Identify case studies

2.3: Document data sources, availability and challenges

3.1 Brainstorm goals

3.2 Merge goals

3.3 Present and share results

Details

Gather information from USDOT, CAMP and operators

Determine how value will be assigned

Select 3 applications for case study of qualitative and quantitative value

Use case studies for operator, OEM and supplier costs

Create a definition of data for TWG3 purposes

Data sources, availability and challenges

Providing and receiving data from operator, OEM and supplier

Convene focus group

Identify commonality and uniqueness among goals

Document and share with other TWGs

Identify Common Goals

Themes

“To help accelerate consistent and effective deployments of Connected Vehicle technologies that address **passenger vehicles**, **freight**, and **transit** operations in both urban and rural areas.”

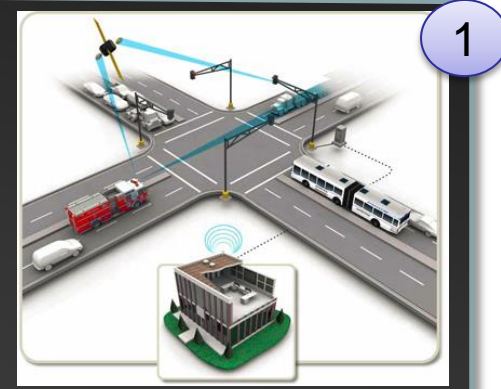
Accelerate V2I deployments related to:

1. Intersections (signal & non-signal)
2. End of queue warnings
3. Work zone management
4. Curve warning systems

CAMP LLC
Vehicle to Infrastructure (V2I) Consortium

MMITSS

- Intelligent Traffic Signal System (ISIG)
- Transit Signal Priority (TSP)**
- Mobile Accessible Pedestrian Sig. System (PED-SIG)
- Emergency Vehicle Preemption (PREEMPT)
- Freight Signal Priority (FSP)**



1 RLWW

3 RSZW

4 CSW

Driver Vehicle Interface (DVI) Example

All Modes & Roads

In this environment, the Q-WARN application may reside in the vehicle or within an infrastructure-based entity, or utilize a combination of both.

Q-WARN

2 Queue alert immediately provided to following vehicles to prevent secondary crashes

1 Freeway collision occurs and queue forms

2

Questions?



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