

DRIVE



Accelerate cooperative mobility

FOT-Net 6th Stakeholder workshop Exploitation of FOT results

November 28, 2011

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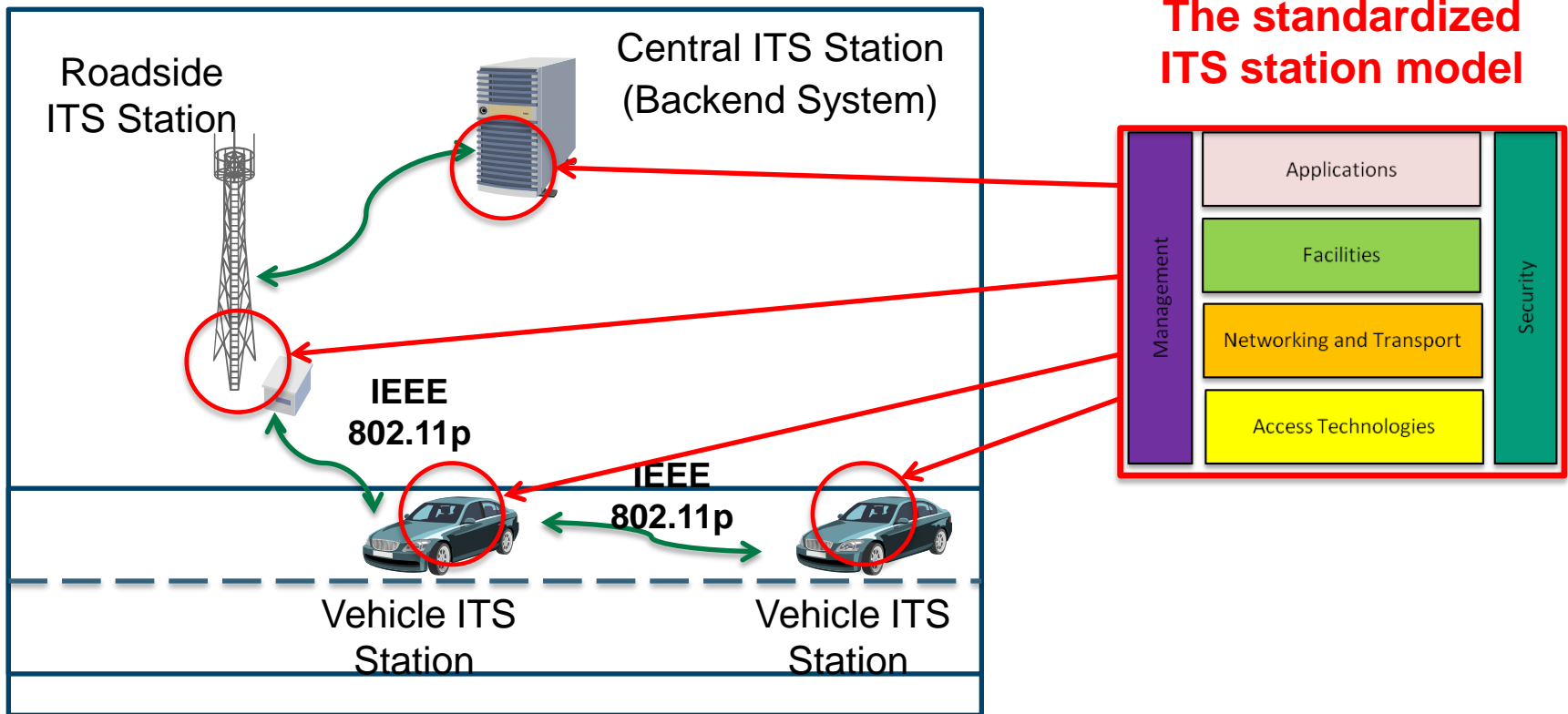
Project Manager

ERTICO

Agenda

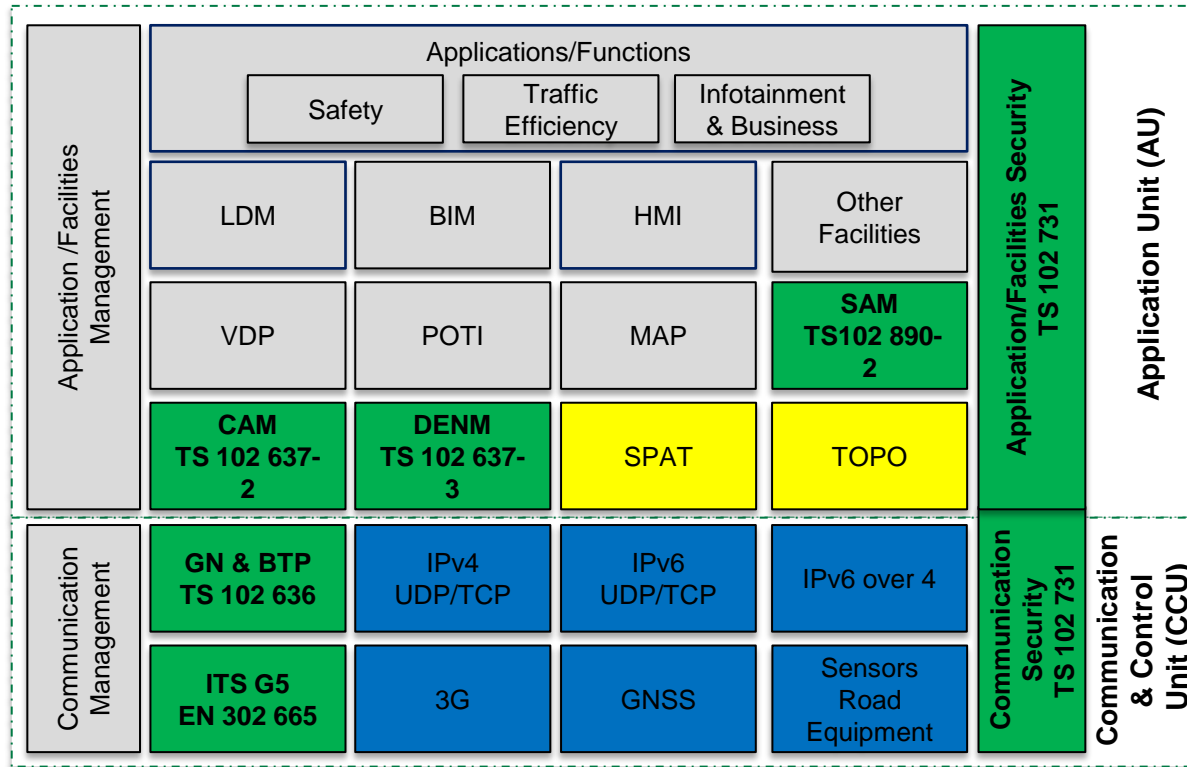
- Project presentation:
 - DRIVE-C2X system highlights
 - Project milestones contributing to exploitation
- What will be done to ensure deployment?
- What kind of needs does the project respond to?
- What is the expected project result?
- Who are the final or potential users or beneficiaries of the project's outcomes?
- Exploitation activities and means used





DRIVE C2X Cooperative System architecture



- The system architecture is based on a standardized ITS station model, which enable communication and thus operating cooperative driving functions

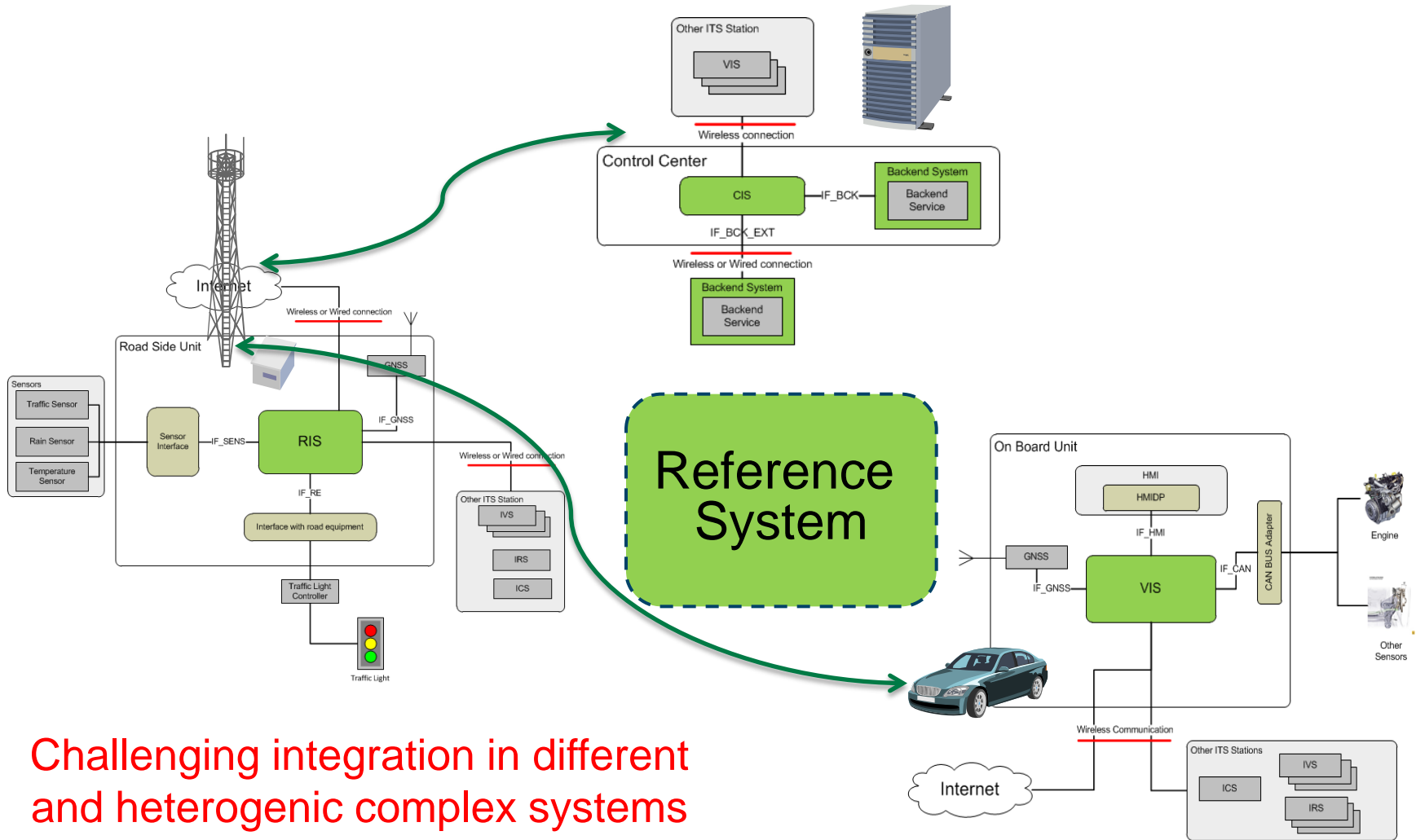
DRIVE C2X System implementation



-  ETSI standard
-  SAE standard
-  Other standards (not ITS related)
-  no standard

- Non standardized components to be specified
- All component to be implemented
- Result: a "reference system" SW implementation (OSGi bundles), which can be integrated on different HW platform

DRIVE-C2X: system integration



Challenging integration in different and heterogenic complex systems

Project milestones contributing to exploitation

1. Specify and implement the ITS reference system SW
2. Support vehicle integration and testing
3. Support Road side integration and validation at the system test site
4. Check interoperability – V2V and I2V
5. Support Road side integration of the reference system on the 6 functional test sites (dedicated to the FOT operations)
6. Provide technical evaluation on the integrated cooperative driving systems
7. Execute FOT operation on all 6 functional test sites to collect **impact assessment** and **user acceptance** data for the Cooperative driving evaluation
8. Analyze assessment and acceptance data and provide evaluation results.

What will be done to ensure deployment?

- DRIVE-C2X paves the road from standards to deployment
 - Provides “generic” implementations of standards
 - Specify and implements additional required components, which are not part of the standards
 - Use and promote conformance and interoperability testing – prepare the certification
- Experiment and validate cooperative systems integration in road side infrastructure
 - Provides specification and guidelines to integrate the reference system SW in the road side infrastructures (Traffic lights, sensor, signage, backend, ...)
 - Check interoperability and functionalities (piloting and technical evaluation)

What kinds of needs does the project respond to?

- Standardization
 - Evaluate the standard maturity
 - Provides feedbacks from implementation and integration
 - Propose updates and enhancements
 - *High quality standards are critical for deployment and exploitation*
- Interoperability
 - Interoperability is necessary to execute FOT operations
 - *High level of interoperability is critical for deployment and exploitation*
- Guidance
 - Integration of cooperative system on existing road side infrastructure
 - Realistic driving experimentation during FOT
 - *Shows the way forward to successfully apply cooperative driving to increase traffic safety and efficiency*

The 1st ITS Plugtests event organized with ERTICO, ETSI and TNO in strong cooperation with DRIVE-C2X



What is the expected project result

- Prove the applicability of ITS cooperative standards
 - Showing a straightforward way to implement cooperative driving solutions in vehicles and road side infrastructure
 - Demonstrating the interoperability in the V2V and I2V perspectives
- Easily carry on FOT operations
 - Proving the possibility of a seamless introduction of cooperative driving functions I vehicles and infrastructure, in particular during the naturalistic tests
- Positive evaluation of cooperative driving benefits

Who are the final or potential users or beneficiaries of the project outcomes

- Standardization bodies
- Test tools manufacturers
- Automotive vendors
- Car manufacturers
- Road operators – Road authorities
- Road users
- Universities and research institutes

Exploitation activities and means used

- System Design
 - Implementation use case and guidance from DRIVE-C2X reference system
 - Testing and validation methodology
- Deployment
 - Integration use cases and guidance: experience from the 7 test sites (Road side) and 9 car manufacturers
 - Usability and fine tuning: from the FOT operations
- Benefits
 - Result of the impact assessment

Contact Details

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