INTELLIGENT VEHICLE SYSTEMS AND COOPERATIVE SYSTEMS FOTS USING EUROFOT OPERATIONAL EXPERIENCE IN DRIVE C2X
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Maxime FLAMENT, Head of Sector - SafeMobility
Francois FISCHER, Andras Csepinszky
ERTICO – ITS Europe
Why comparing two different FOT operations

- Major FOT activities in Europe: EuroFOT, TeleFOT, DRIVE C2X
- EuroFOT: FOT on ADAS started in 2008
  - FESTA: Mature European methodology for FOT and assessment of autonomous in-vehicles functions
  - Operational guidelines are publicly available
- DRIVE C2X: FOT on Cooperative Systems started in 2011
  - Relying on FESTA but methodology not always applicable → revision v3
  - Cooperative Systems FOT operation quite different because need to collect data from vehicles, road side infrastructure and traffic centre
  - However, basis for FOT operation guidelines is still valid
- This paper discusses these differences
DRIVE C2X objectives

- Carry out a comprehensive assessment of cooperative systems through extensive European Field Operational Tests
- Create and harmonise a European-wide testing environment for cooperative systems
- Coordinate the tests carried out in parallel throughout the DRIVE C2X community
- Evaluate cooperative systems
- Promote cooperative driving
DRIVE C2X test sites

Seven Test Sites:

- **System Test Site:**
  - Helmond/Eindhoven, The Netherlands

- **Functional Test Sites:**
  - Tampere, Finland,
  - Yvelines, France,
  - Frankfurt, Germany,
  - Brennero, Italy,
  - Gothenburg, Sweden
  - Vigo, Spain
Drive C2X relying on previous results and lessons learned

- National test sites
- FOT Handbook v2
- FESTA V FOT IP
- Lessons learned

Cooperative Systems Methodology

FOT Handbook v3

FOT Handbook (FESTA v3+)

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project start date: 01.01.2011 | end date: 31.12.2013
The DRIVE-C2X test sites – overview of FOTs
(not exhaustive)

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<th>Test Site</th>
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FOT methodology: Basis of all European FOTs
Vehicle related procedures

- Vehicle selection (types, fleet...)
- Vehicle Rotation among drivers
- Vehicle preparation
- Data acquisition systems
- Vehicle status
- Data pickup and handling
Driver related procedures

- Driver selection (type, etc...)
- Consent Form
- Driver training/briefing
- Video recording inside and outside the vehicle
- Incentives
- Insurance
- Questionnaires and interviews
- Hotline
- Data Quality Insurance
Conclusions

- Common methodology enables better cooperation across FOTs
- Learning from previous FOT experience is a must!
  - Do not try to reinvent the wheel; Do not think that your FOT is unique
  - There is a lot of existing experience that can be applied to your operations
- The creation of a federation of FOT across Europe introduces additional complexity but:
  - Contributes to a comparability of the results and collected data
  - Helps to promote harmonised standards across Europe
  - Identifies the organisational and institutional issues
  - prepares for a faster deployment
Thank you
Maxime Flament
ERTICO – ITS Europe
m.flament@mail.ertico.com