



Day2

Digital IT Infrastructure & Connectivity

## ITS G5 makes V2X for C-ITS happen

R. Tugrul Güner

Connected Vehicles

Product Management

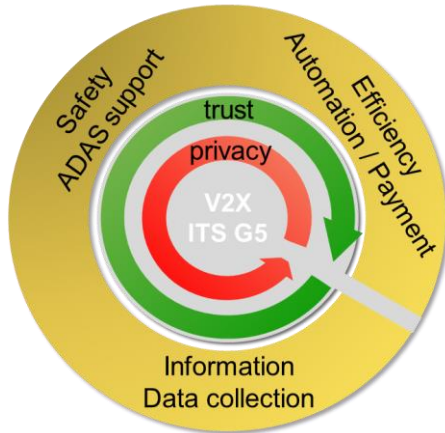
Kapsch TrafficCom

[guener@kapsch.net](mailto:guener@kapsch.net)

**03-04**

April 2017

Brussels



Copyright © 2016 Kapsch TrafficCom

## C-ITS utilizing ITS G5 for V2X

Vehicle to Vehicle (V2V) and  
Vehicle to Infrastructure (V2I/I2V) Communication

to improve

- **Safety**
- **Efficiency**
- **Mobility**

and to support

- **Autonomous driving**



## ITS G5 for C-ITS

- Efficient communication
  - **Utilizes 10MHz channels**
  - **Zero latency, i.e. instant**
  - **To all relevant traffic users simultaneously (broadcast, one to many)**
  - **Small and simple data packets**
  - **Robust**
- Secure communication
  - **Authenticity**
  - **Integrity**
  - **Pseudonymity - anonymity**



## ITS G5 Status and Framework

- Frequency band harmonized and allocated (EU, US, AUS, ....)
- Frequency band non-licensed i.e. doesn't cause additional cost to user
- Open technology and international standards
- Standards are finalized
- Mature and available based on extensive experience and pilots
- International technology and standards in EU, US, AUS, ...
- Security framework and interoperability on EC level
- Independent of network infrastructure and operator
- Deployment already started in production level
- Open for evolution and complementary technologies (e.g. LTE, C-V2X, 5G)