



Tomorrow's Elastic
Adaptive Mobility

TEAM: a vehicle dialogue

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RATIONALE



eco friendly and safe driving

- Let's offer all vehicle drivers functions and services to drive more eco-friendly and safer
- Let's identify and implement mechanisms to facilitate a wide scale use and adoption of the new functions and services by all drivers

WOW: this sounds like a great idea! But I am a good driver, the problem is the traffic around me...



OK, got it, but why shall I change anything in my driving habit?

TEAM: let's build a vehicle dialogue



In few years time all vehicles (cars, trucks, motorbikes, busses,..) people, traffic control centers, road infrastructure, will be producers and consumers of:

Geo-referenced traffic and travel information data

COLLABORATION = from cooperative systems to collaborative strategies

*Yes, but how can we use data
to create a framework of
collaboration?*



TEAM: let's build a vehicle dialogue



COLLABORATION = cooperative systems + cloud + community

cooperative systems = V2X communication

TEAM cloud = dynamic data set for eco&safe driving strategies

community = offering "virtual coins" when driving eco&safe

*If I change my driving style
to be more eco friendly & safe
I get a benefit!*



TEAM: let's build a vehicle dialogue



- **COACH** the driver: act like a coach, deduce and plan the actions, perform them, and tell about the success ...
- Let drivers **PARTICIPATE** with serious gaming mechanisms: enable drivers to exchange their experiences ...

*Which are the building blocks
for a collaborative eco friendly
and safe driving?*



TEAM: let's build a vehicle dialogue

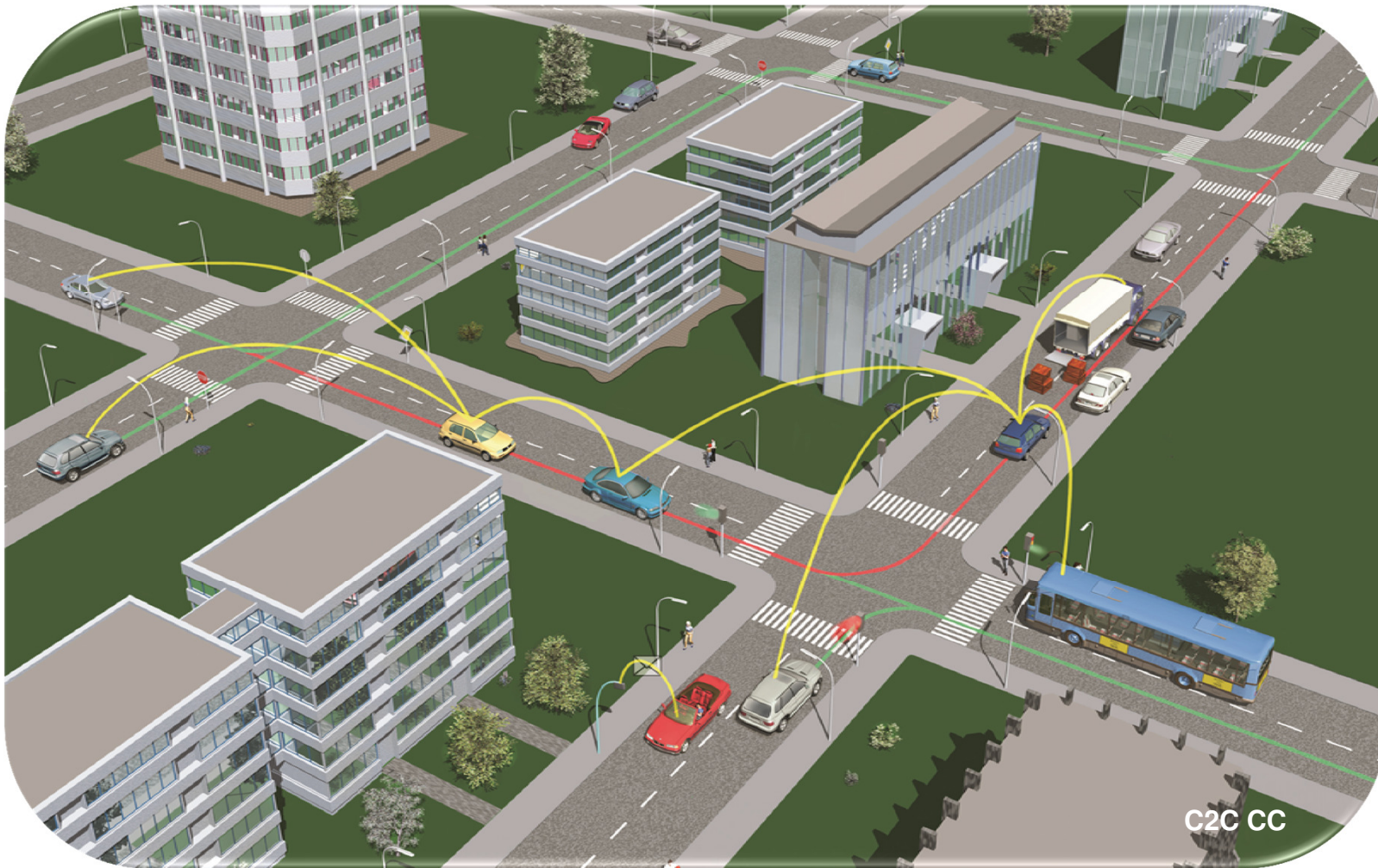


- Tell drivers how they could drive at best per each driving tasks with an **AVATAR** approach
- **REWARD** drivers through incentives like “virtual community coins” and a reputation mechanism

*We are defining
the building blocks*



TEAM: what about scenario complexity?

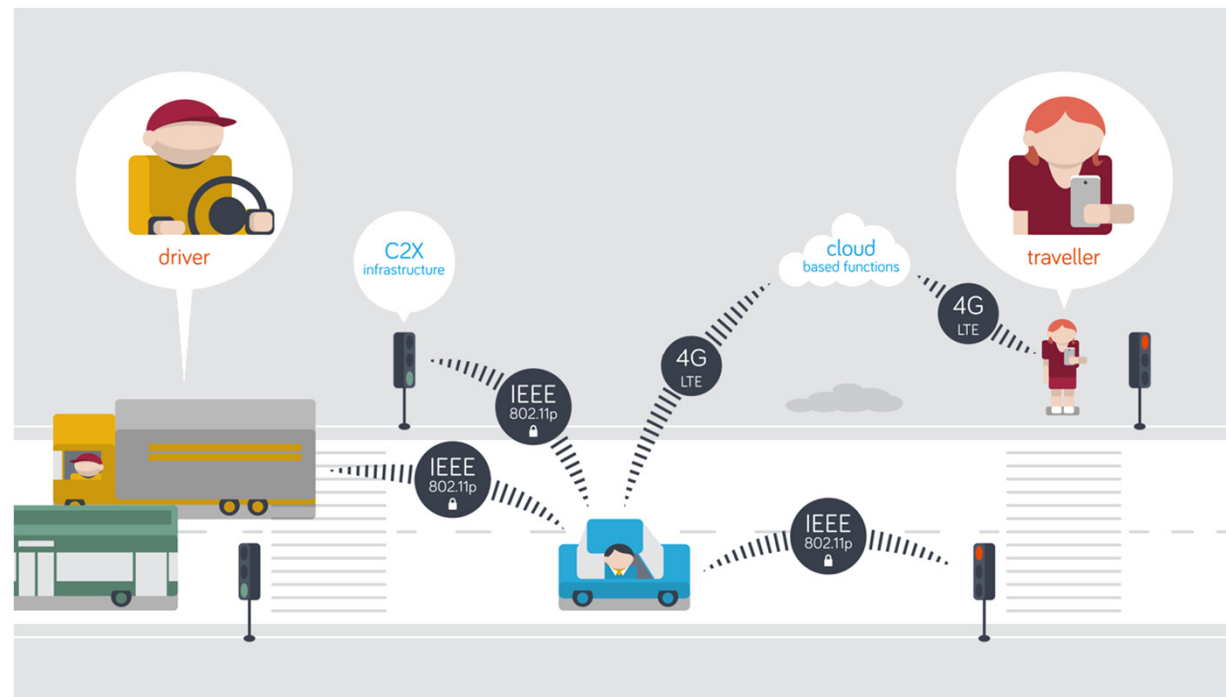


TEAM is building a vehicle dialogue



- **COMBINES** drivers, vehicles, smart phones, cloud-based local dynamic map services

- **IMPLEMENTS**



TEAM is building a vehicle dialogue



Create

basic technologies

- Advance vehicle-2-x systems with LTE technologies
- Develop an automotive cloud-computing platform

Integrate

infrastructure-
centric technologies
and algorithms

- Develop proactive infrastructure-centric algorithms
- Enable behavioural change taking into account real-time needs and constraints

Demonstrate

distributed
technologies and
algorithms

- Develop proactive user-, community- and group-centric algorithms
- Realise massively distributed collaborative control and optimization concepts

Evaluate

the impact

- Conduct a Euro-EcoChallenge to demonstrate and evaluate TEAM results

TEAM DIALOGUE applications



- (1) Green, safe and collaborative driving
- (2) Collaborative adaptive cruise control
- (3) Collaborative driving and merging
- (4) Collaborative eco-friendly navigation
- (5) Collaborative eco-friendly parking

*We include also serious gaming
and community building*



TEAM DIALOGUE partners



Automotive



ICT



Intel Mobile Communications



Infra-structure



Research



Thank you!

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