



# ARCADE Joint CAD Network Stakeholder workshop

4<sup>th</sup> April, Brussels

## Scenario introduction – Systems & Services

Guido Di Pasquale, UITP

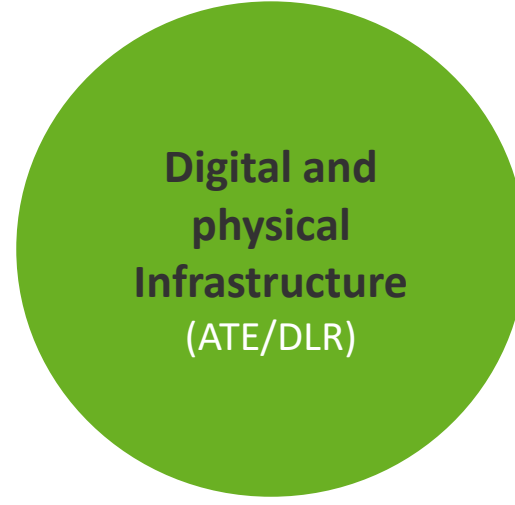
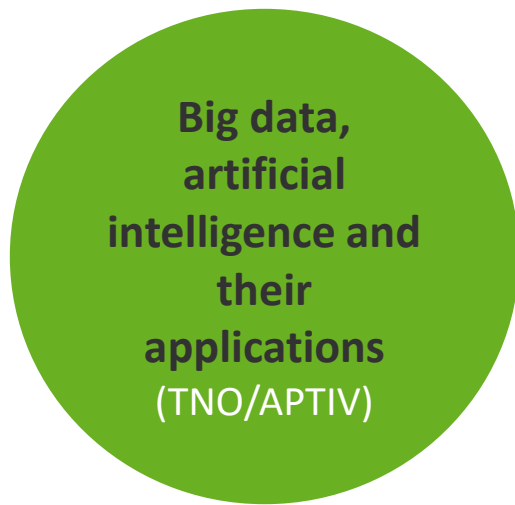
Nadege Faul, Vedecom



ARCADE is funded by  
the European Union Horizon 2020  
Work Programme



# System and services related thematic areas (UITP, VDC)



**stakeholders involvement**

**market introduction**

**scenarios**

**business models**

**ethical, societal and legal challenges**

**security**

**raising awareness**

**data sharing**

**real-time infrastructure maintenance**

**sustainable operations**

ARCADE Stakeholder Workshop Brussels 4 April 2019



# SCENARIO 2030

## Physical&Digital Infrastructure

- Fully HD Map coverage & connectivity
- Automated tactical information by infrastructure
- Most traffic signs virtual, Smart road elements available

## New Mobility Service

- User acceptance, operation and business models understood
- Opensource platform being deployed
- CAD services based on shared data, using dedicated infrastructure, accessible by persons with reduced mobility



## Data&AI

- Collaboration between vehicles, PDI and citizens (Big Data)
- Adapting to the needs of each other, and to the situation (AI)
- Technological building block for seamless communication and computation on vehicles, cloud...

## Freight&Logistics

- Pilot operations for hub-to-hub flows
- CACC truck platooning available on highways
- Drivers still in demand, but shortage not a critical problem for the industry, new skills required

# SCENARIO 2050

## Physical&Digital Infrastructure

- All traffic signs & road markings are virtual
- Automatic self organization for maneuvers is established
- Vehicle tactical control by local management



## New Mobility Service

- Services deployed in all contexts, including rural areas
- Integration in the multimodal universe, single access for ticketing across Europe
- Integration into urban planning finalized

## Data&AI

Liability issues solved

## Freight&Logistics

- Deployment : Fully automated logistics, Physical internet. Infrastructure on highways equipped to facilitate cooperative truck platooning
- Social : role of the driver changing regarding the tasks to be performed (remote control room rather than cabin)

# Projects

1. AVENUE
2. AUTOCITS
3. CoExist
4. DriveSweden
5. ICT4CART
6. 5GCroCo
7. AUTOPILOT

8. Dreams4Cars
9. FABULOS
10. Transforming Transport
11. VI-DAS





# Most selected topics

1. **New mobility services:** Operational and business models
2. **Physical&Digital Infrastructure:** Tactical information
3. **New mobility services:** Integration of services and operators, including data sharing and interoperability
4. **Big Data & AI:** Training and testing of AI-based CAD functions
5. **Big Data & AI:** Monitor performance of AI-based CAD functions (after market)
6. **Freight&Logistics:** Perception of other road users when considering an automated truck on the road

# Organisation of the breakout session

- Per thematic area:
  - Feedback on the scenarios 2030 and 2050
  - Key challenges and / or blocking issues to get there
  - Key enablers
- Systems and Services: harmonisation of scenarios, challenges and key enablers



# Thank you!



ARCADE is funded by  
the European Union Horizon 2020  
Work Programme

