

## **BILAG 1 – Resumé af projektet COMPASS4D (På engelsk)**

### **Project title:**

Cooperative Mobility Pilot on Safety and Sustainability Services for Deployment (Compass4D)

### **Target users**

Compass4D target users are drivers of buses, emergency vehicles, trucks, taxis, electric vehicles and private cars. They all need information to make their driving safer, less stressful and more energy efficient.

The project will assist bus drivers to keep time schedules. Emergency vehicles will safely accelerate their emergency interventions. Drivers of electric vehicles will benefit from extended driving range. Truck, taxi and bus drivers will be more relaxed when travelling through congested intersections.

### **Pilot services**

Compass4D will pilot three cooperative solutions that are viewed by the consortium partners, and a wider global community, as deployment initiators. The three services to be piloted are:

- Forward collision warning
- Red light violation warning
- Energy efficient intersection service

### **Specific project objectives**

1. Ensure successful deployment and after-project life of the three piloted services, aiming at proving both safety and energy efficiency benefits.
2. Globally harmonize specifications for the three piloted services, through close cooperation with the US & Japanese counterparts, other CIP pilots and relevant standardization bodies
3. Establish and follow an agreed harmonized testing, installation, monitoring and assessment strategy, as well as a common strategy for deployment of all three specified cooperative systems across all pilot sites
4. Prove safety and energy efficiency benefits to all relevant stakeholders by collecting critical mass of data in 12 months full-scale operations of selected cooperative systems at each pilot site.
5. Collaborate with relevant standardization bodies, mainly but not exclusively ETSI and CEN, in order to ensure full interoperability of the deployed cooperative solutions
6. Create a set of best practices on the basis of the pilot site operations including guidelines, business models, manuals, and training material

## **Pilot sites**

The services described above will be deployed and piloted in seven Compass4D cities:

- Bordeaux, France
- Copenhagen, Denmark
- Eindhoven, Helmond, Netherlands
- Newcastle, UK
- Thessaloniki, Greece
- Verona, Italy
- Vigo, Spain

## **Copenhagen pilot site**

The site chosen for the pilot project in Copenhagen is a central bus connection running between Copenhagen Central Station, and passes the important Østerport Station, which is a hub for regional trains, commuter trains, the S-train and from 2018, also the new Metro City Ring.

The pilot site is one of the busiest bus routes in Copenhagen. The pilot site has one A-line bus running over the whole section as well as one other A-line bus running on parts of the pilot section. In addition, a number of regular bus routes run along the pilot road section.

A-bus lines in Copenhagen are characterized by high frequency and short distances between stops. The City of Copenhagen is interested in implementing a project to reduce congestion and facilitate punctual or early arrivals of buses. The pilot site embraces 21 traffic signals.

The pilot site "The Copenhagen City Centre Bypass" will be based on the following four Cooperative ITS services in the project:

1. Bus priority at all 21 intersections with the aim of optimizing bus traffic flow on the entire stretch, so punctuality improves and travel times are reduced.
2. Traffic signal status - information for drivers about when they can expect a green signal, and how long there is for passengers to get on and off at a bus stop before the bus signals show green.
3. Forward collisions at three or four intersections - information for drivers about formation of traffic queues after sharp turns.
4. Red violation light violation at three or four intersections where incidents took place in the past - information for bus drivers about drivers violating the red lights from side roads.

The City of Copenhagen's role in the project includes coordination, project management, identification of functional requirements and road side installation works.

PEEK will be the main technical implementation partner for the road side, on-board and back-office cooperative solutions.

Movia will be handling the contact to the bus fleet operator and the integration of the hardware and ITS services to relevant buses.



*Copenhagen pilot site layout*

### **Budget and commitment of the City of Copenhagen**

The overall budget for Compass4D is 76mill DKK. The budget of the specific pilot site in Copenhagen is 4,052 DKK – excluding new controllers. The City of Copenhagen is committed over a 3 year period to finance 2,026mill DKK including salaries.