Manuel Marsilio

General Manager of CONEBI

Confederation of the European Bicycle Industry

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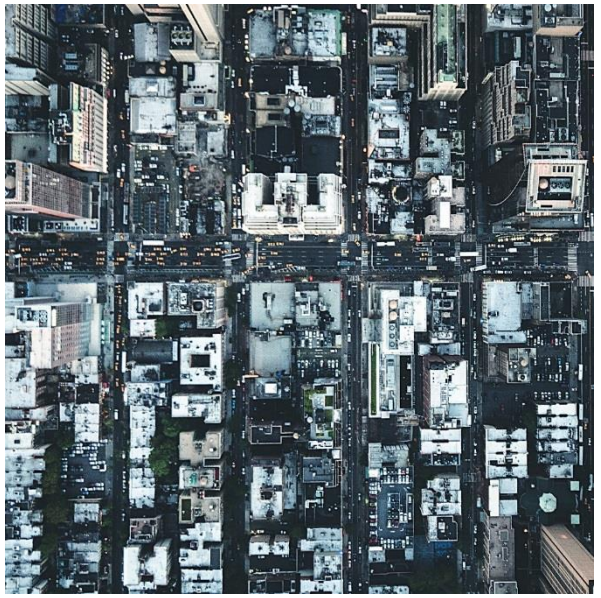
Colibi-Coliped

Since 1960 Representing the European Bicycle Industry

Increased pollution

Population growth



Increasing urbanization

Increased mobility & pressure on accessibility

SOME OF THE TRENDS IN MODERN CITIES

MAJOR CONCERN: SAFETY

The Secret Sauce

High-Level Process

TREK + Tome

Heat-map Danger Zones

AI based system to identify the most dangerous situations based on a variety of environmental variables

Data from bicycle computers, government crash data, and crowdsourcing

Broadcast Positions

Get the cyclist location up to a service from Trek bikes, accessories, and/or apparel

Create Alerts

Looking for cyclists and vehicles that are at high risk based on location, time, and environmental conditions

Vehicle Notifications

Providing OEM API access, libraries, reference applications and RF hardware as appropriate

User Experience

Danger Zone Creation Criteria

TREK + Tome

Road Characteristics

High speed limits
Small berms
No bike lanes
Rough road (pot holes)
Blind corners

Environmental

Direct sunlight and heading, rain, and other environmental factors can dynamically trigger a DZ.

Cyclist Community

Cyclists know what roads are the most dangerous.

B2V allows the community to curate (Waze-like) DZs on a map.

Previous Incident Data

Pulling data from previous incidents as well as cyclists marking hazards to create DZs.

Artificial Intelligence

Requires AI to determine dangerous areas

Needed for the vehicle notifications

Retrofittable

Needs to work on every bike, everywhere

Software update for existing bike computers

Aftermarket options for bike lights

Mobile app libraries for existing bike share

APIs + Open Standards

Supporting DSRC commands.

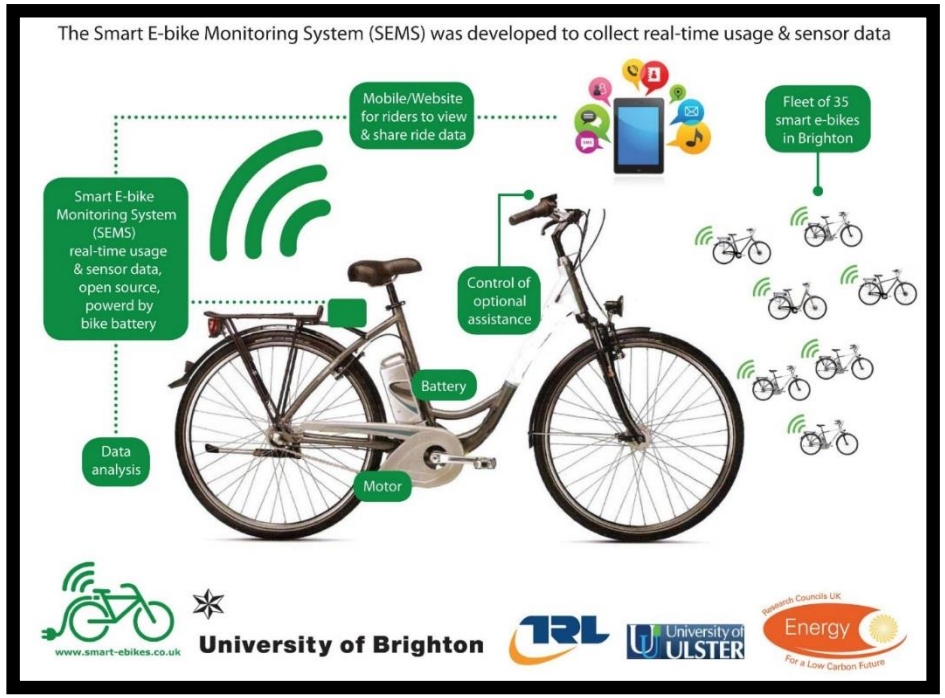
Provide open standards to run on any wireless system. (DSRC, BT, Ant)

Must be accurate, timely, and meet existing automotive OEM UX and HMI requirements for notifications

Cooperation with the Automotive Industry

CONCRETE ACTIONS TOWARDS SAFETY: AI-based bicycle-to-vehicle (B2V) communication systems to help

drivers get alerts to bicycles ahead in dangerous areas of the road.



Connected bicycles

Connected Mobility concepts, standards and regulations

Other vehicles and the infrastructure

IMPORTANCE OF INTEROPERABLE CONNECTIVITY

CONEBI welcomes the valuable work of the international organizations and deems it is of utmost importance for all stakeholders to work within those organizations

UNECE