

Geofencing – new tool in town!

Summary break-out sessions group

Technology

Main drivers/opportunities

- The technology is already there (especially in premium vehicles) at hand. FIWARE provides an effective platform for the technology.
- Automation: “no automation without geofencing”. Seen as a large enabler for automation.
- Intelligent traffic management: The ability to influence traffic management (from a city perspective). Additionally, dynamic charging of congestion a possibility.
- From a commercial and business model perspective an important possibility is to show the fulfillment of different legislations. A way for commercial actors, for example transport operators, hauliers, transport buyers, public transport operators, to ensure quality of the transport activity carried out.
- Reduced stress for drivers by improved support and assistance.
- From an industry perspective: geofencing as a tool for zero emission zones implies a possibly increased demand for hybrid vehicles
- Maturity and scalability of the technology: we need to take a step-wise approach, to move from static zones towards dynamic geofenced zones
- Datahubs under establishment (Swedish Traffic Cloud). In general, a data cloud is needed for several applications. Geofencing can be one of these.

Main obstacles

- Standardization within EU (e.g. within the industry, national and city perspective).
- Data quality and trusted senders.
- Safety critical application of geofencing requires robust technology.
- Technology development and regulation -> mismatch. Technology development is faster.
- Fleet stock (e.g. if just 5% of the fleet stock can handle geofencing). Market introduction period (14 years lead time to 100% deployment).
- Technology is not the main issue, but rather standardization and information sharing
- What roles will different actors take, who is responsible of sharing what data, and who will be in control of the data? Data is the most valuable asset.
- Open interfaces for efficient and safe sharing of data and policies
- Complexity of dynamic geofencing: integration with Traffic Management (rerouting) to arrive at dynamically changing, algorithm driven geofencing application.
- Cybersecurity

Policy and governance

Main drivers/opportunities

- Increased safety. Reduce speed.
- Decreased emissions: health concerns
- Climate targets / traffic flow control.

- Comfort for the driver: know speed limit, remove speed bumps.
- Find win-win situations and main driving forces. Insurance is one important driver.
- Benefits at drivers level, and at fleet owner level.
- Adaptability (adapt to different cities) to current situations.
- Traffic management (e.g. around concerts to close and open roads – space management).
- Night time deliveries.
- The “image” is a strong driver from professional drivers perspective
- Transport policy objectives such as road safety, access, emissions (noise and particles), use of space
- Use cases “low-hanging-fruits”: bridges, tunnels etc where vehicles are not suitable for the infrastructure.
- The vehicle can be used as a “moving speed bump”
- Utilize geofencing as a tool for enforcement of legislation.
- The ITS Directive provides a good starting point for future uptake of data.
- The Horizon Europe Mission for clean and smart cities can drive geofencing applications.
- Existing traffic information handlers to be involved.
- Ability of national level to engage on this.

Main obstacles

- Who are willing to pay for the needed technology? Who is paying for the infrastructure?
- The mix of new and old vehicles.
- The mix of voluntary and mandatory services and level of penetration depending on these categories.
- Up-to-date information.
- Data quality
- Lack of enablers in view of data exchange.
- Accuracy of GPS and storage (to handle all the information).
- Standardized and harmonized information all over Europe.
- Acceptance from the users and public.
- Remote control is overestimated (legally, technically, liability...)
- Negative perception, emotional aspects of control of behavior (private cars)
- Changes in institutional arrangements within and between road operators.
- Differences in policies in terms of speed legislation. Deeper knowledge and more research needed about speed-limits and its implications overall on the transport system, safety, external effects and transport efficiency.
- Acceptance, in terms of:
 - Public sector (integrity, ethical issues)
 - Remote control
 - Politics
 - “Freedom of driving”