Project name:	FCD in traffic management
Date:	26/06/2018, 10.00-12.00
Notes:	Kurt Marquet & Peter Van der Perre
Location:	Bluepoint building Brussels

Name	Organisation	Present
Jean-Marc Timmermans	Agoria	√
Nicolas Talpe	Be-Mobile	√
Consuelo Cadena	Bruxelles Mobilité	√
Nele Dedene	Dep MOW – beleid	√
Jaak Boon	DepMOW – mobiliteitscoördinator	√
Gijs Dayers	Dep MOW – mobiliteitsbegeleider	√
Mark Thoelen	Dep MOW – mobiliteitsbegeleider	√
Pascal Cappelmans	Febiac	√
Steven Soens	Febiac	√
Pradeep Kuravi	Febiac	√
Werner Filez	FLIR	√
Caroline Emonet	Ingestic	√
Chris Tampère	KUL	√
Jens Verhiest	Lab Box	√
Dimitri Arts	Localyse	√
Pierre Boutaine	MACQ	√
Luc Wens	NRB	√
Koenraad Verduyn	PTV Group	√
Tudor Ivanov	Pulsar	√
Inge Cools	PwC	√
Bart Lowyck	Satellic	√
Jean-Pierre Deknop	Siemens	√
Sébastien Devynck	Siemens	√
Christian Deleener	Spie Belgium	x
Stijn Vernaillen	stad Antwerpen	√
Emilie Couwenberg	stad Antwerpen	√
Karolien Van den Broeck	stad Turnhout	√
Philippe Decap	SPF Mobilité et Transports	√
Caroline Pourtois	SPW – centre PEREX	x
Sven Maerivoet	TML	√
Bart Van Doorselaer	TomTom	√
Filips Emsens	VAB	√
Michael Petit	Ville de Namur	√
Kristof Smet	Vlaams Verkeerscentrum	√
Peter Van der Perre	ITS.be	√
Kurt Marquet	ITS.be	√

Agenda
Use of big data for mobility management   1. Be-Mobile, Nicolas Talpe

2. TomTom, Bart Van Doorselaer
3. Febiac, Pascal Cappelmans

User experience FCD:

4. Flemish Traffic Center, Kristof Smet
5. Center Perex, Caroline Pourtois
6. City of Antwerp, Emilie Couwenberg

Discussion & conclusions

Notes & decisions

0.

Multimodal mobility management is one of the four priorities for ITS.be. Big data and more in particular floating car data and floating mobile data is an important precondition for (real-time) mobility management done by authorities or outsourced to private companies. We see increased interest in the use of FCD and FMD on a local and regional level. For this reason this workshop will highlight the possibilities on the market and share the first experiences.

1.

Nicolas Talpe (Be-Mobile) presents the view of Be-Mobile and the market solutions that they offer (see [presentation](#)).

- Customers
    - road operators
    - smart event organisers
    - smart cities
- Data types (essentially travel time and/or speed information)
    - real-time data
    - historical data
- Sources
    - virtual data sources
        - telco data
        - Floating Car Data
        - tolling data from ViaPass
    - data from asset sources
        - trajects (ANPR cameras, Bluetooth)
        - locations (Induction loops, Radar, PIR, Parking)
    - data describing infrastructure.

Q&A:

- Your FCD is GSM or GPS data? It depends. For roads that don't exist yet you can't use FCD. It is always case dependent.
- Is it GDPR compliant? Yes, there are several barriers. All FCD is anonymized and aggregated. GSM-data for instance will only be used as aggregated data (group of at least 30 simcards).
- What is your coverage? We have about 30 different suppliers and we can have more if needed, but for the use cases that we are asked for today, this amount is enough. We cover 4 to 8% of all cars, 44% in telco, 85% of trucks (Viapass data).
- Wifi-p is not in your FCD? Yes it is an asset-source.
- FCD is changing very fast, although the detectors remain often the same. How do you cope with these deprecated devices? We use the Qbench model which validates the data quality. More info below.
- Do you have structural access to Viapass data? No only via projects.

- How can a company buy FCD? It always depends on the use case. What type of data, how long, which trajectory, combined data, what will you do with it…
- Data is becoming a commodity. How do you deal with data that is bought for use case A but after some time also for use case B. GDPR was a difficult one for this, but we found a solution with no effect for the end-user.

2.
Bart Van Doorselaer gives an insight in the global market solutions of TomTom (see [presentation](#)).
Q&A:
- Are there use cases used by Belgian authorities? We operate globally and depending on the setup we work with intermediaries or cities themselves.
- What cities do you work with today? TomTom gives no statement on this.
- What is your selling point? We don't sell data, we license data in aggregated format (bulk feeds).
- Do you also use data from OEM's? Yes aggregated data.
- Aggregated data is often difficult to interpret. Yes, but we are not allowed to share unique data.

3.
Pascal Cappelmans from Febiac gives a presentation on how they deal with car data collected from all kind of car sensors (presentation not shared - confidential). Febiac is working on a mobility data platform which has 5 focus points: traffic, congestion & flow / speed & behavior / itinerary & mobility / road safety / parking & stop. The platform will also make it possible to analyze data (not in real-time).

Q&A:
- What is your coverage? It is not by default for each car or OEM. We have contracts with several car manufacturers and receive the data from their servers.
- Are the cars already equipped are do you do that? We do not equip the cars. We use the data from built-in sensors so data sources can be different between brands.

4.
Kristof Smet highlights how the Flemish Traffic Center (VVC) buys and works with FCD (see [presentation](#)). In 2008 they started with the first experiments on FCD.

Q&A:
- Since you work already several years with FCD, there must be tender components that can be interesting for other authorities. The VVC will share these tender components (see [link](#)).
- The VVC is also using [Qbench](#) as a quality control mechanism. Quality control is also a criterion in the tender process.
- What do you exactly buy? We pay per trajectory for route travel times and we pay for congestion reports for the whole of Flanders (which we filter ourselves).
- Can you give us an idea about the price? Not really sure, but I think it's 400K for 3 years (route travel times on motorways).

5.
Caroline Pourtois (SPW DGO1) was not able to attend the meeting due to an injury.

6.
Emilie Couwenberg of the city of Antwerp gives a presentation on how the city works with FCD and signals next steps and suggestions (see [presentation](#)).

Q&A:
- Is this data available as open data? We are not allowed to publish the data that we receive. We can only share the routes or analysis that we made ourselves, not the data.
- Authorities are obliged to publish all their data as open data. The city of Hasselt for instance pays to be allowed to do this. The VVC only shares travel times.
- Does your route planner also give advice? Yes, it gives advice about roadworks and it avoids residential areas.

7.
The floor is open for a short discussion:
- FCD is evolving. It is complex, there are a lot of sources, the selling model is not mature. Very practical questions on micro-level cannot be answered yet
- Not only authorities but also companies are interested to buy (raw) data. The cost however is not always clear and quite high. Some figures attached.
- FCD is just a first step, aim is to work towards services.
- Look outside Flanders and Belgium. In Poland and London they look ahead in time. These market solutions exist already today.
- Private companies, tell us what is possible. Give insight on which uses case the public sector should do and be transparent about the price.

Peter Van der Perre concludes the meeting by signaling the most important issues and lessons-learned when working with FCD.

1) Raw data is not often being used by authorities, often aggregated and derived data are used (eg travel times)
2) Qbench is a common mechanism to measure quality used in tenders
3) Keep in mind the open data sensitivity and its impact (some suppliers will not allow data to be published as open data)
4) Be sensitive for multimodal layers
5) Cost is dependent on supported use cases - there are no public pricing overviews yet showing costs for typical use cases (see some example given by Pulsar).

Annex - example figures on FCD
(input provided by Pulsar)
• Pricing types :
  o   per number of citizens in the region
  o   per km of road covered
  o   per report requested
• Pricing scope : per year, for historical data, and/or for real-time data
• Remark : in fact not really real-time, but rather with 1-5 minute delay. Beware that 5 min could be too long for certain traffic/jams situations
• Examples of prices obtained from some suppliers (I will not give their name, to respect their confidentiality):
  o   For 300.000 citizens city : historical data 30-40.000€ / year, historical + real-time 40-50.000€/year
  o   For 20-30 Km road to survey : historical data 10-12.000€ / year, historical + real-time 13-16.000€
  o   For an average complex report : 2-3.000€