POLIS Conference

Data in Brussels Public Transport

1-12-2020

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Head of Data & Analytics

MIVB STIB .brussels

Some Figures

- 4 metro lines
- 18 tram lines
- 60 bus lines

2200 stops
1263 vehicles

Operates an integrated network +/- 650 km

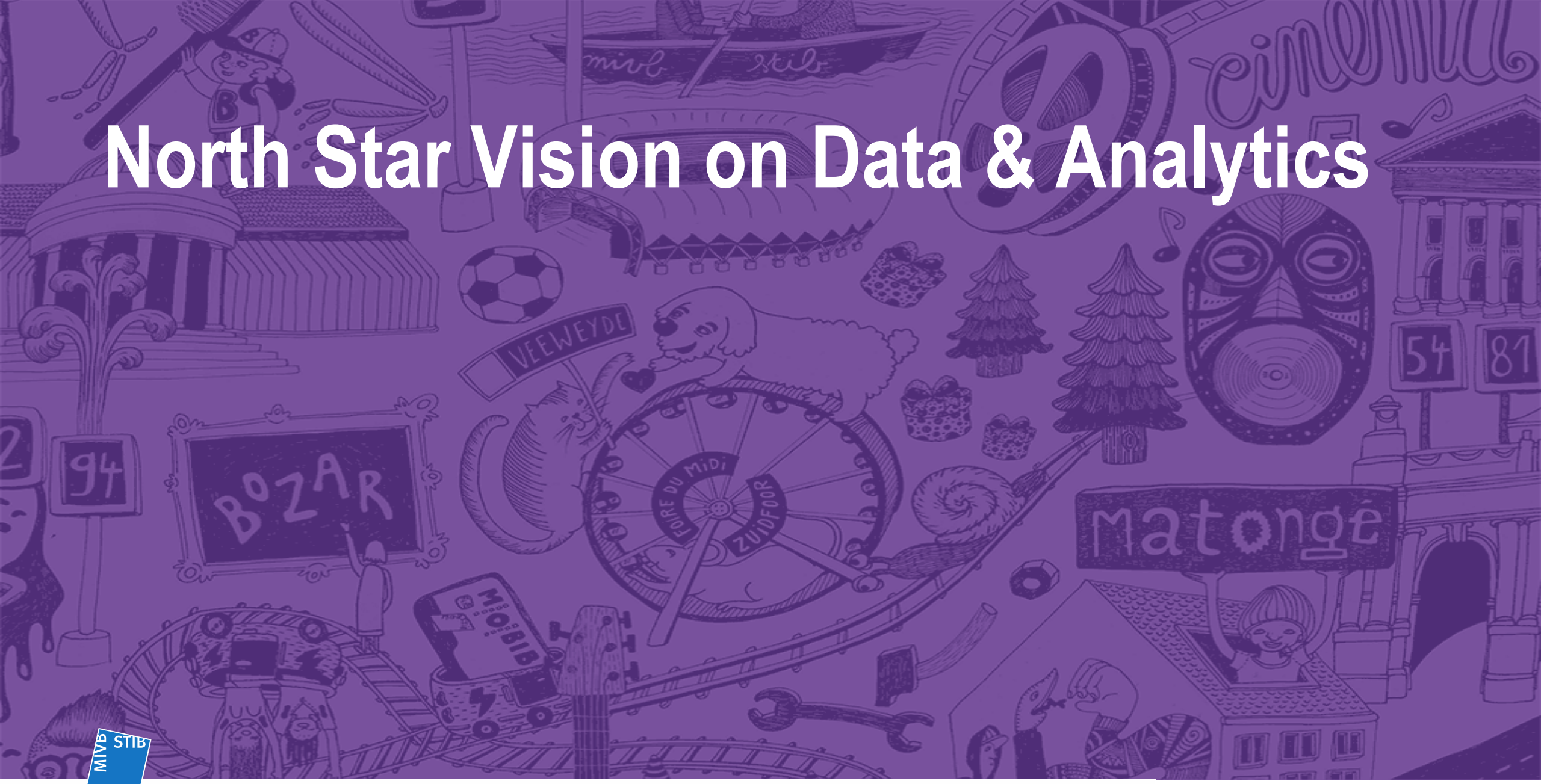
Operating 7/7 and 20h/24h

48,3 million km driven per year

9420 employees

Transports more than **one million** Brussels residents and commuters every day (433,5 million trips/year)

North Star Vision on Data & Analytics



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Where are we in 5 years?

Top Management

Middle Management

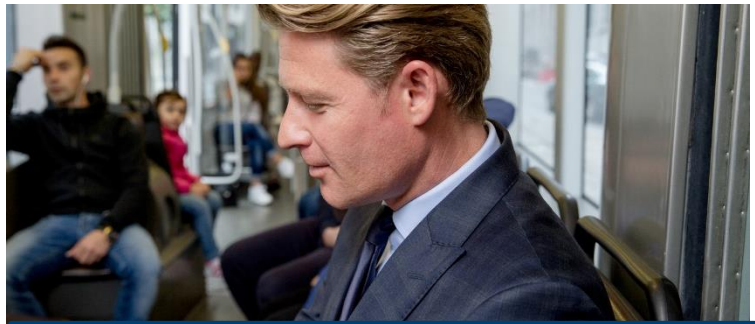
Operational Management

1500 Users (400 creators 1100 consumers)

Data Lab Community

Symbiosis IT & B

Data & Analytics IT Support



Data Enablement

Data Analysts

100 Data Analysts

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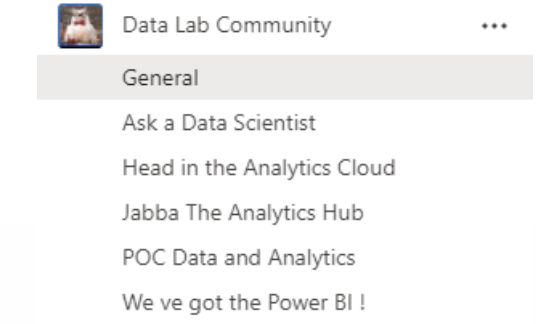
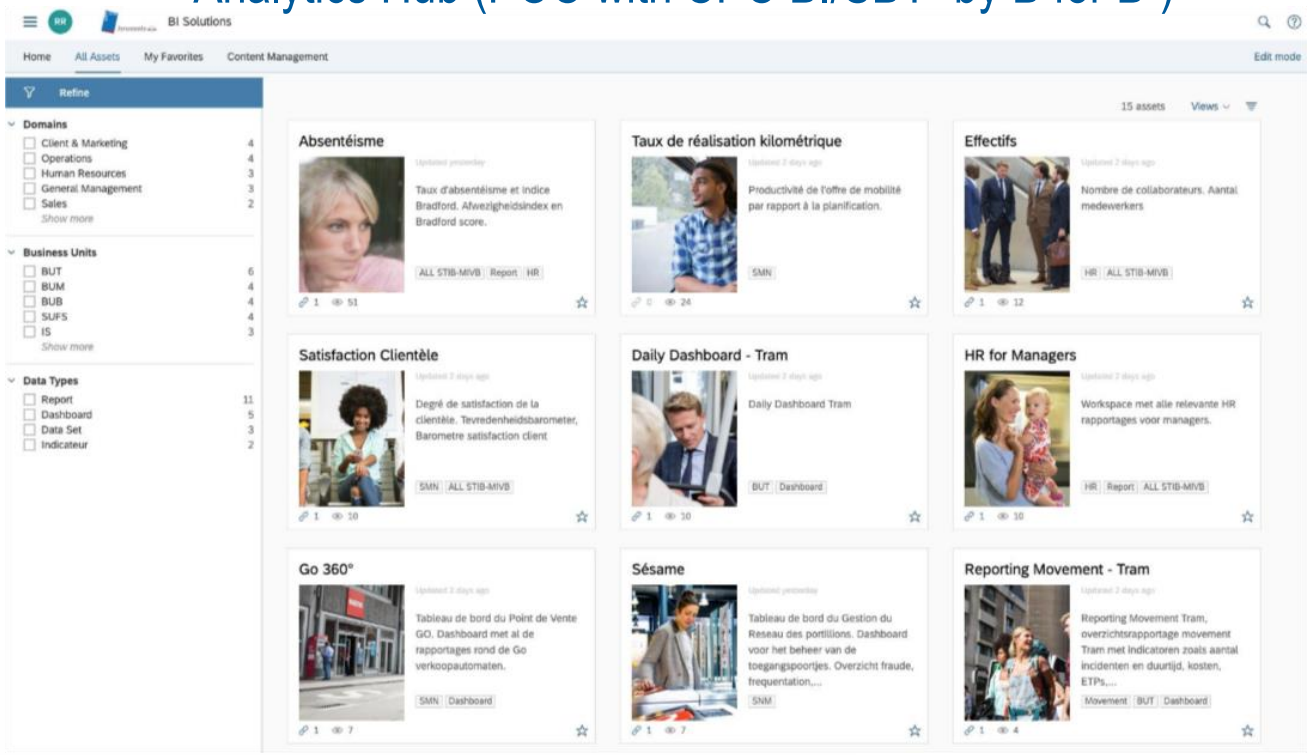
Change Management is at the core

Front-end workshops B & IT mixed (online sessions today)
+- 80 people trained & now via STIB-Academy

Support via MS Teams



Analytics Hub (POC with CPC BI/SBT “by B for B”)



Where are we today with data?

Actual projects together with the business

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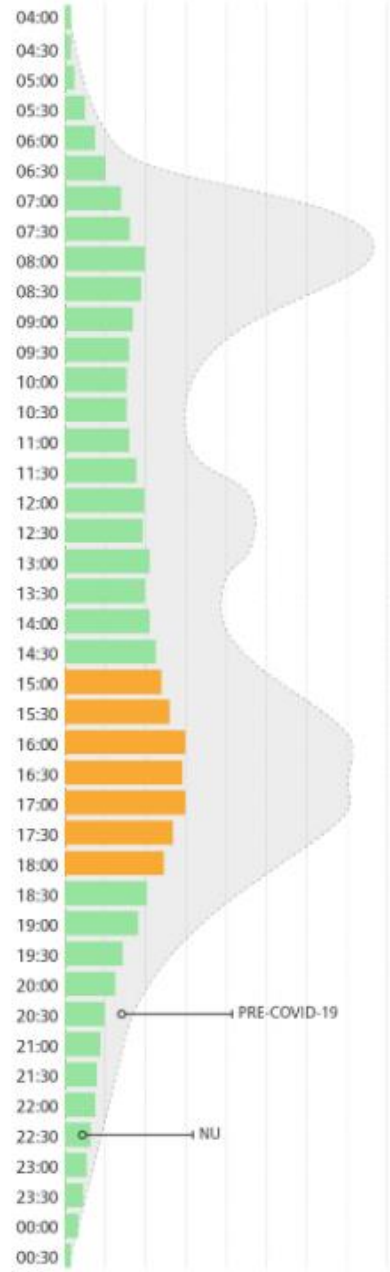
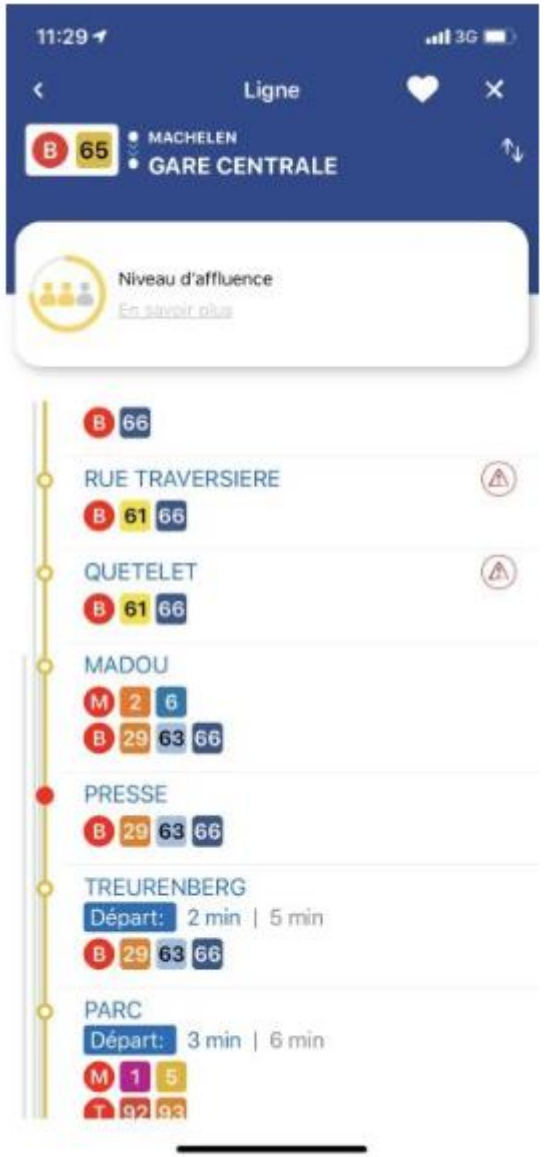
Project Tokyo

Implemented during Covid Crisis

Agile sprints:

- Prepare data for network recalculation
- Visualise on website for users
- Integrate into mobile app
- (next) show interactive data





STIB-MIVB launched MaaS-Pilot

Closed test panel

±2000 participants

Users trained on features and limits of pilot

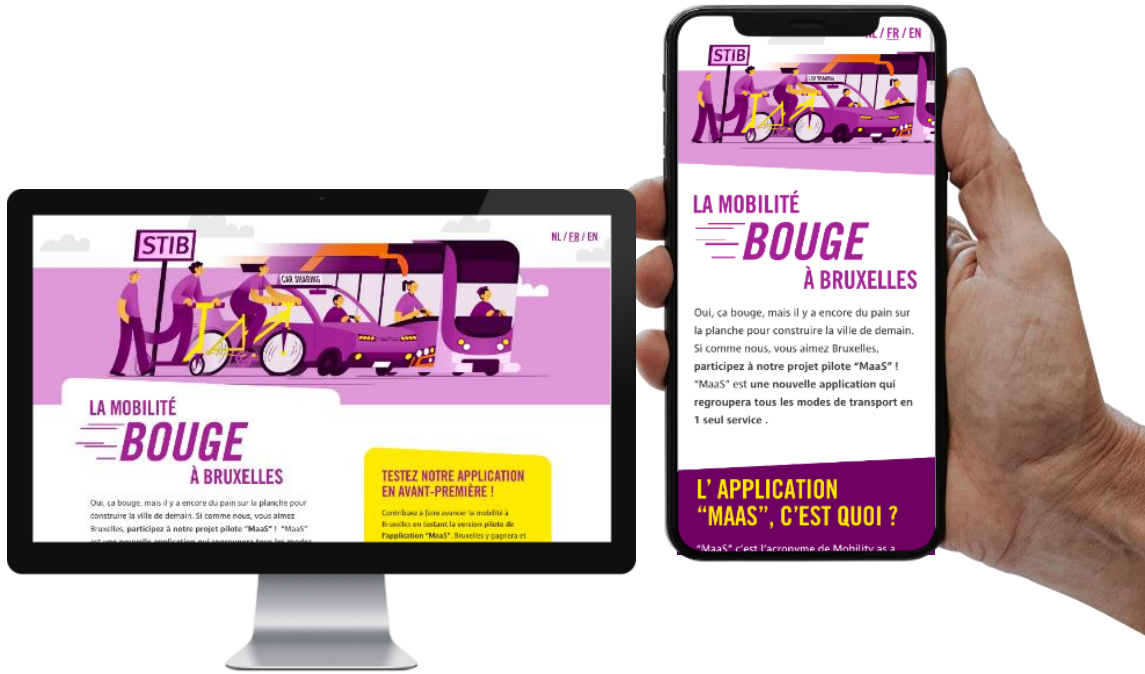
MSPs integrated

4 OTP
+ 2 electric bikes
+ 2 kick scooters
+ 1 car-sharing + 1 taxi

Geographical area

Brussels & agglomeration

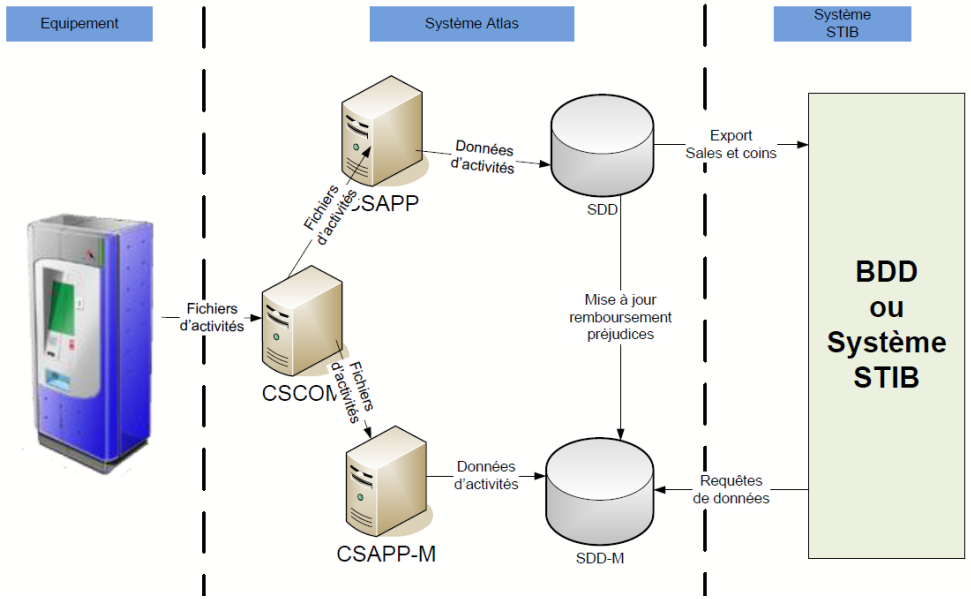
Launch: Sep 16, 2020
Duration: 9 months



New Ticket Vending Machines

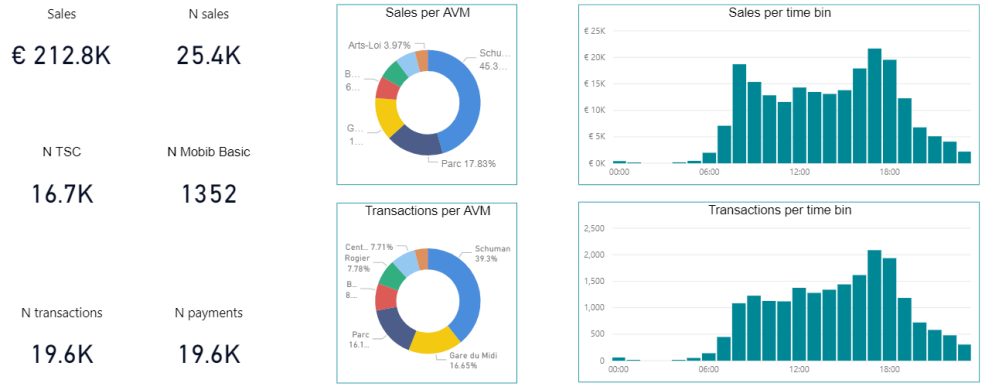
Full access to data of supplier (in contract)
Operational copy every 15min into STIB data lake
Azure Data Lake operational in STIB-MIVB cloud
« Self Service » reporting in MSFT Power BI (and gsm)

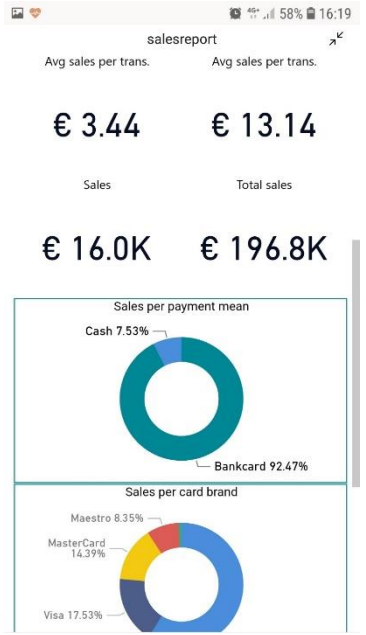
Diagramme de flux

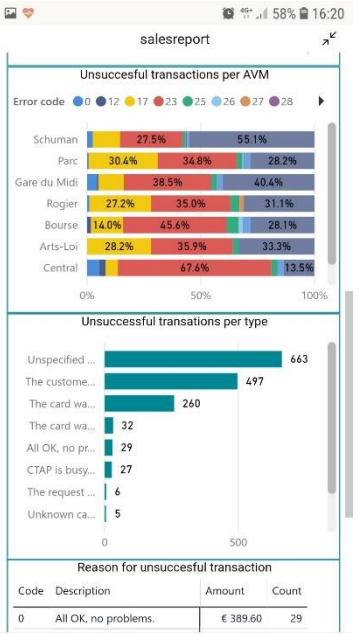


CONDUENT

Heron:
main dashboard



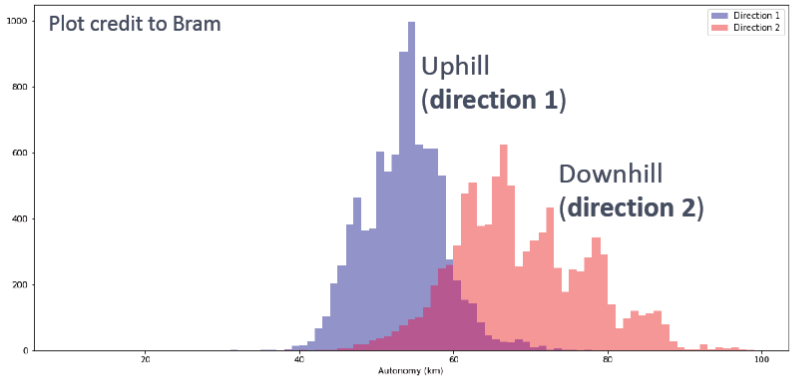




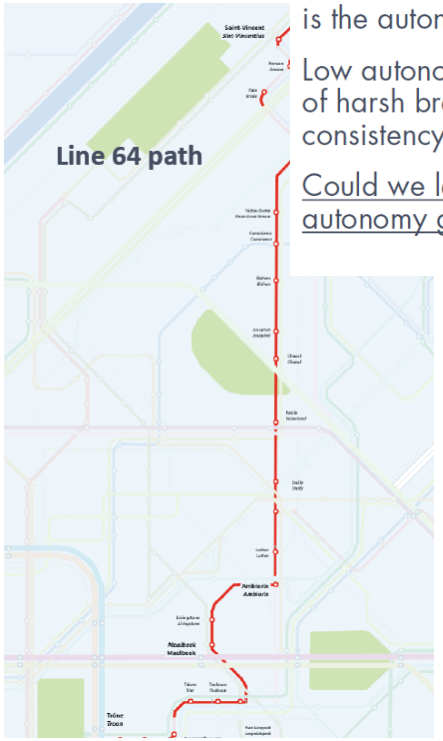
Autonomy of Electrical Busses

Data science support from D&A team to General Staff
Decision making based on learnings (data driven)
Ongoing project based on POC learnings of last years

Direction of travel is a strong predictor of autonomy



- Necessary to split the analysis by direction!
- **Note:** Interesting multiple spikes in direction 2



We identified driver groups which should be trained in eco-driving.

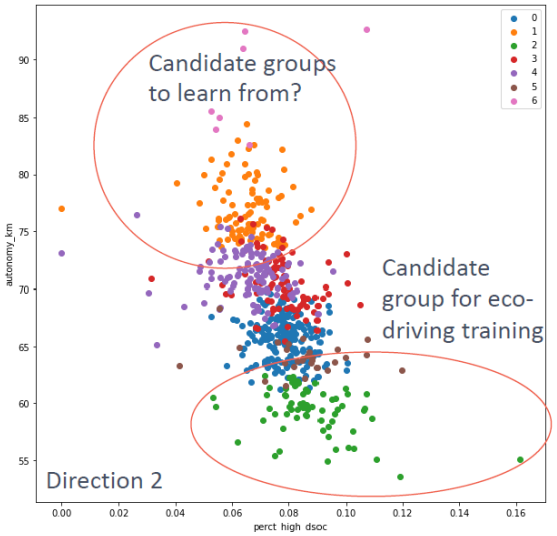
Driving style important => identify groups of "suboptimal drivers"

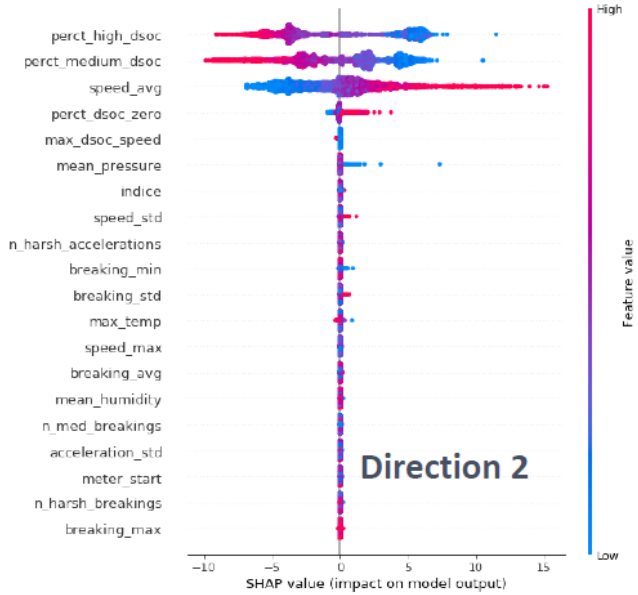
We clusterd the data (Agglomerative clustering) to identify groups with low autonomy

The most important clustering dimension is the autonomy

Low autonomy groups had high numbers of harsh breakings (not surprising, but a consistency check)

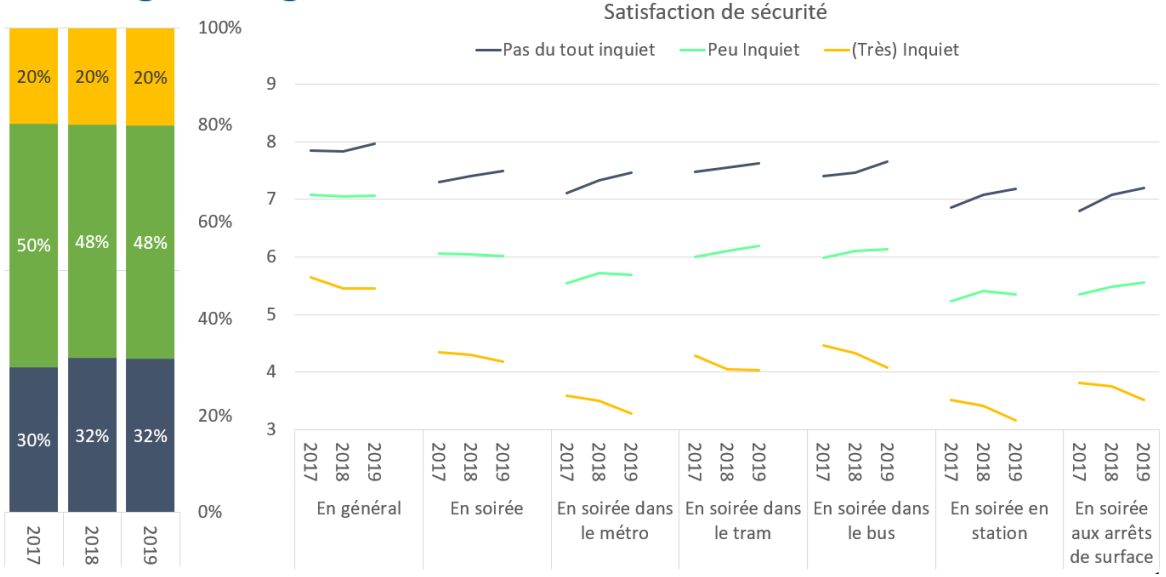
Could we learn something from the high-autonomy groups?



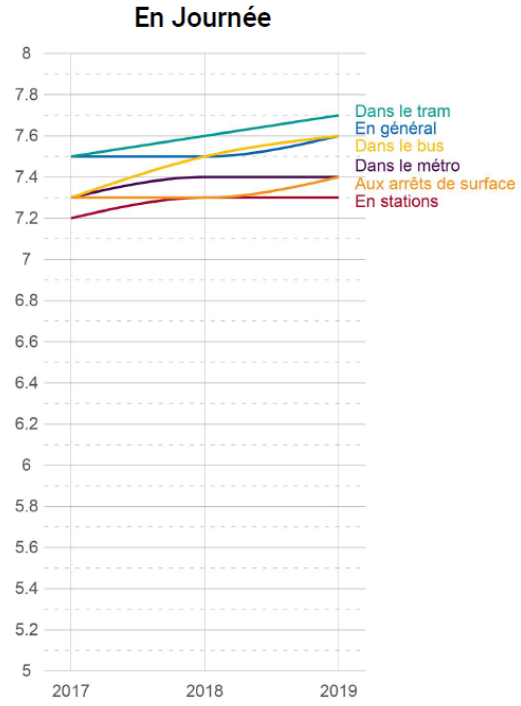


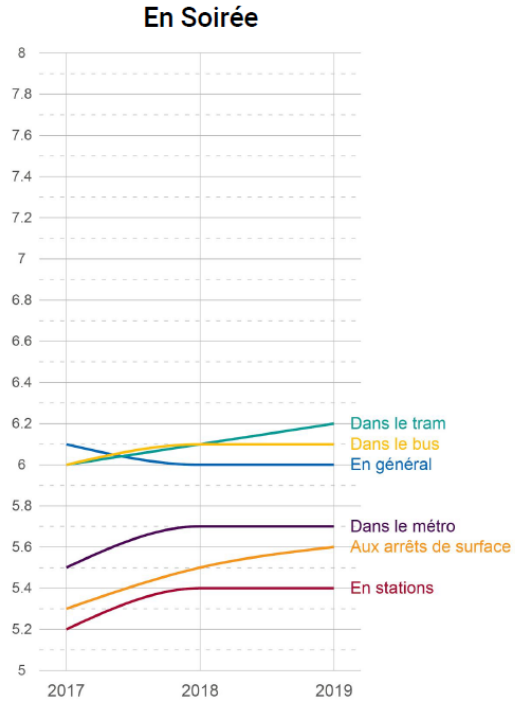
Data Stories

10 manday budget (innovate)
Together with Marketing & GS
Expert data designer to review our visualisations



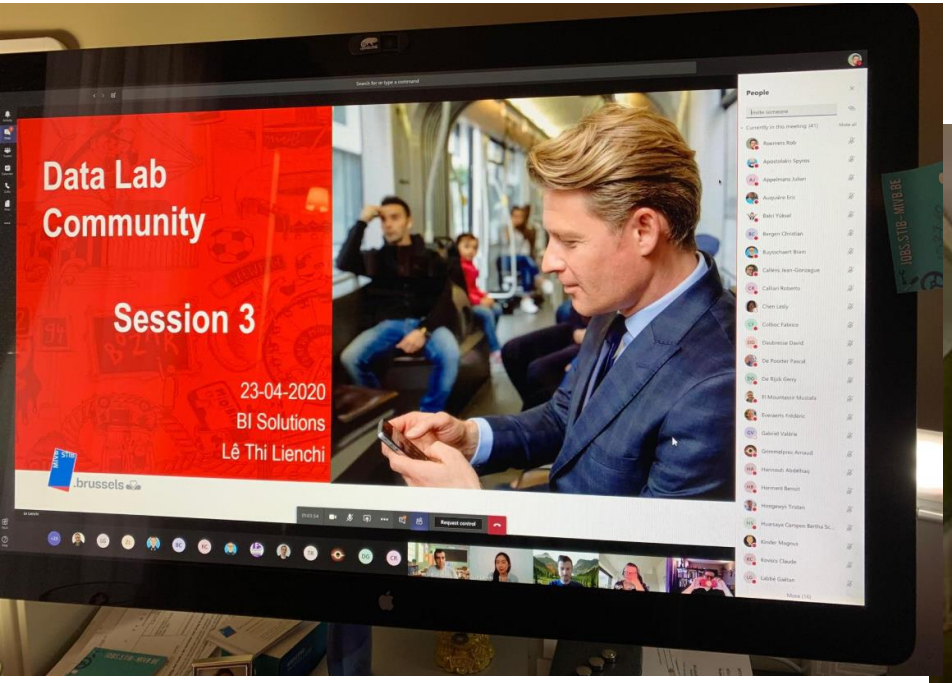
Veiligheidsgevoel **Peu inquiet**





Not only a technical story… this is only an enabler

It's about **change management**, **backplanning** and setting the right **goals & objectives**, **saying no** to what doesn't get us there… and **working together**



Muntstroom.brussels – Living Lab on people flow

Testing by means of use cases in 2022. We're looking for partner(cities) now

4 project partners

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Explainer Video's

Challenge for technology providers

Challenge for parties interested in People Flow-data

Discussion

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