VIANOVA

Better integrating future mobility

THE DATA PLATFORM TO MANAGE FUTURE MOBILITY ON THE CITY STREETS

Thibault Castagne
Polis Conference - Shared Data for Shared Micro-mobility- 2nd of December 2020

Agenda

Learnings for operators and city authorities from implementing micro-mobility management systems in a range of European markets

1 - Introduction about Vianova

2 - Changing landscape & good practices

3 - Presentation of Use cases

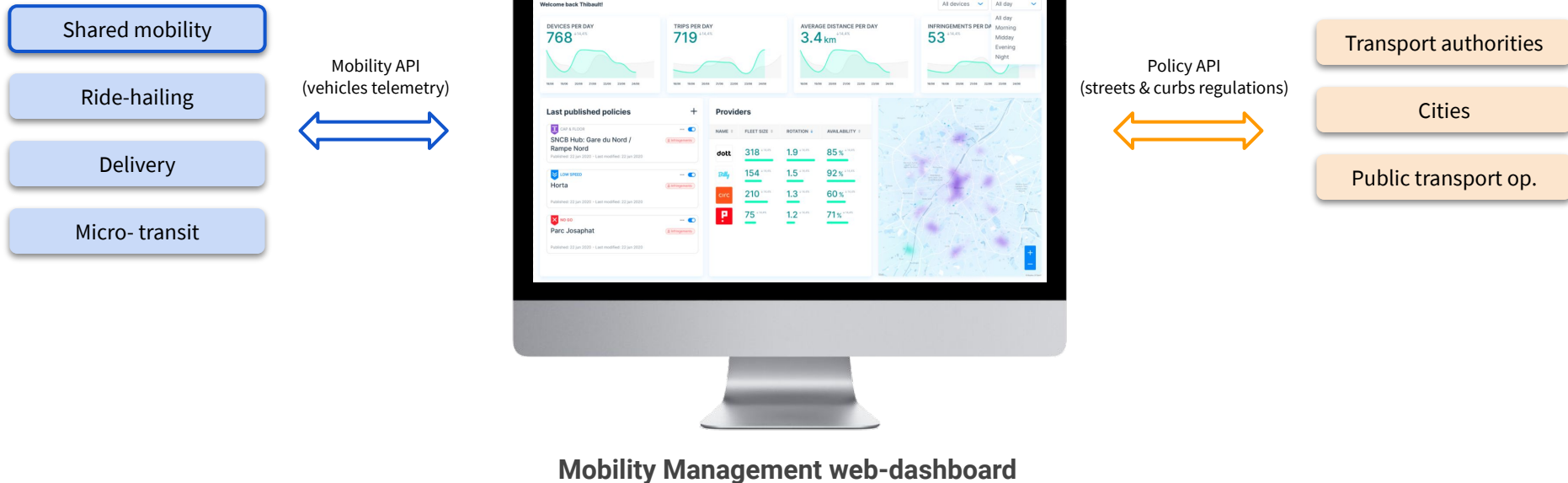# How to better integrate future mobility on the city streets

Challenged public order, safety & city transit

Cities need data and efficient tools to supervise a range of mobility systems on the city streets

- Enabling efficient share of public space
- Promoting a safer & multi-modal transport system

| Shared mobility |
| Ride-hailing |
| Delivery |
| Micro- transit |

Mobility API
(vehicles telemetry)

Policy API
(streets & curbs regulations)

| Transport authorities |
| Cities |
| Public transport op. |

Mobility Management web-dashboard

4

1 - Sharing experience and good practices from EU cities

VIANOVA

- Co-led a **dozen of mobility data projects** with European cities

- **Set-up mobility management system and** advised cities on data analysis and new mobility policies

- **Dedicated client support** and project management capabilities

Client organisation of Vianova:

BRUXELLES MOBILITÉ
SERVICE PUBLIC RÉGIONAL DE BRUXELLES

VBZ Züri Linie

Kanton Basel-Stadt

Région Île de France

Stockholms stad

Faro

Stadt Zürich

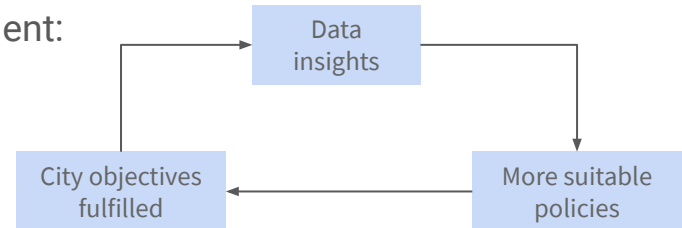HSL HRT

Helsinki

PARIS

ESPOO ESBO
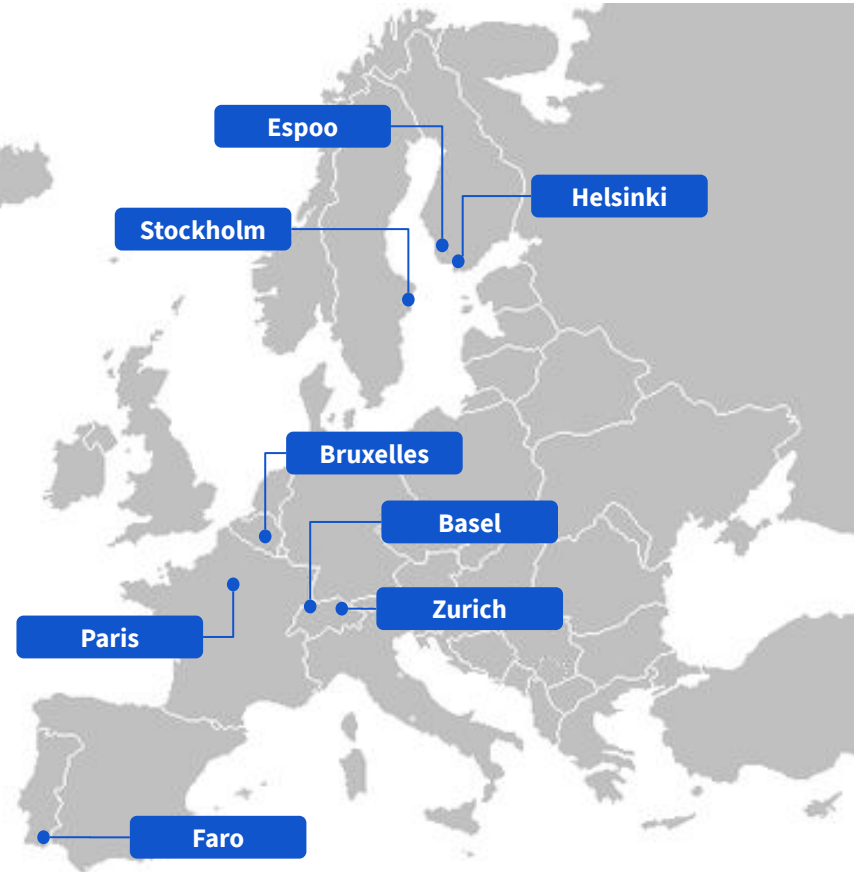
2- Changing landscape: much better 2020 than 2019, 2018

What we saw on the ground for the last 18 months:

1. More **maturity** from cities: **Data & Policies**

2. **Cities** are becoming the **main client**: PPP, tenders, permits, etc.

3. **Operators engaging** in (very) **constructive** ways with cities: Data & Policies

4. Cities are paying attention to each other ! **Good ideas are being shared**

5. **Data quality is significantly improving** ! Nearly universal use of international formats (MDS, GBFS)

6. Data privacy and **understanding of GDPR is improving**

# 2 - Guidelines for shared-mobility management

1. Develop their vision for shared (micro-) mobility as part of their **Sustainable Urban Mobility Plan**

2. Set a **regulatory framework that fit into that strategic vision**
    a. Leave enough flexibility to adapt / add policies
    b. Add **data requirements**: data quality, MDS data format
    c. Include safety, sustainability and equity criteria

3. Set clearly the **purposes of data collection** and communicate it well to operators within data agreements

4. **Engage into a virtuous circle** - micro-mobility management:
    a. Build: policies
    b. Measure: control & analysis
    c. Learn: audit

Data insights → More suitable policies → City objectives fulfilled → Data insights

3 - Presentation of use cases
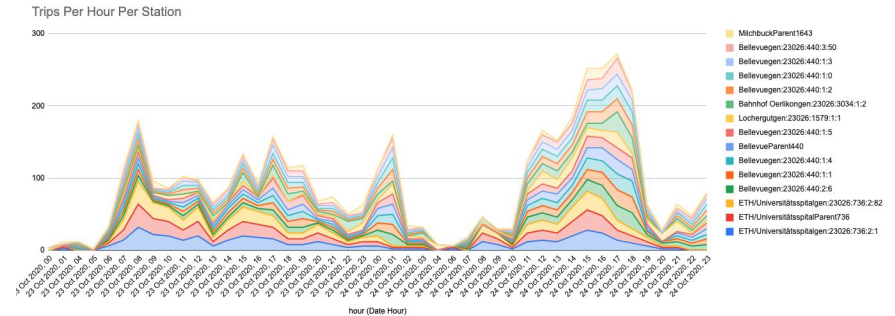
Zurich: selecting mobility hubs & improving VBZ service

Enabling multi-modal journeys through mobility hubs, and improving public transport service

Prioritise deployments of mobility hubs
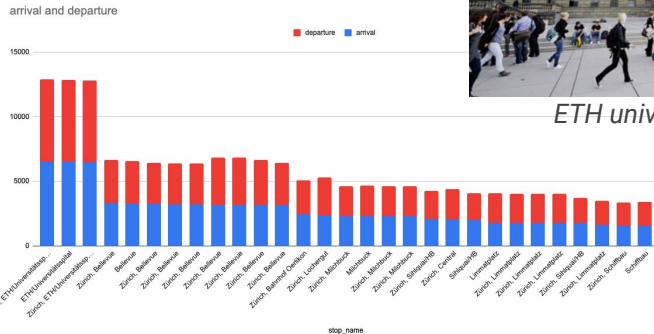
Improve quality of service & diminish wait time

ETH university

When are the most micro-mobility trips vs tram schedule

Bruxelles: Deployments of 20 mobility hubs

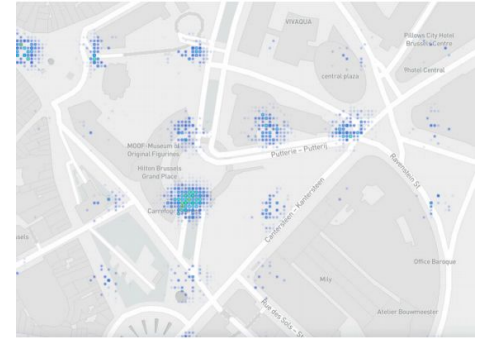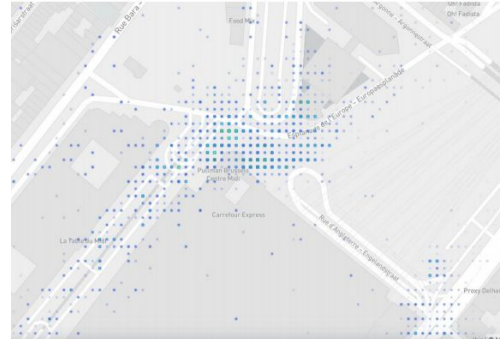Using pick-up & drop-off insights from shared vehicles to map & dimension mobility hubs grid

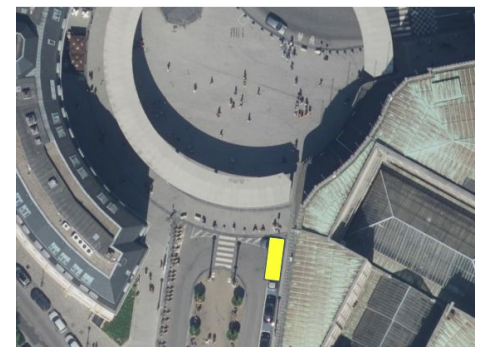
Vehicles telemetries

Mobility insights
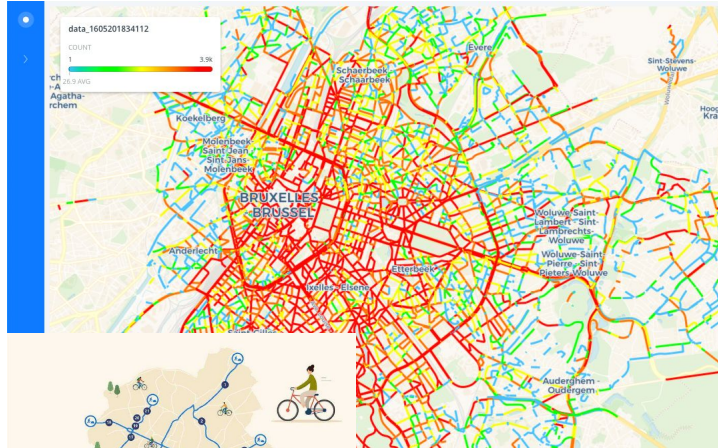
Urban planning decisions

+ Monitoring of usage

Gare Bruxelles Midi

Gare Bruxelles Central

Bruxelles: planning and usage of cycling lanes

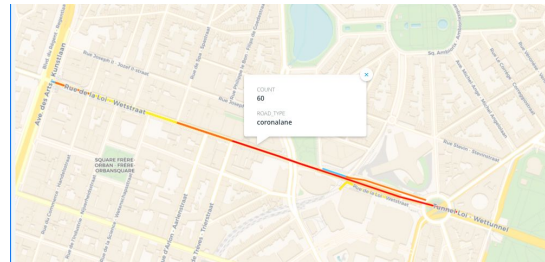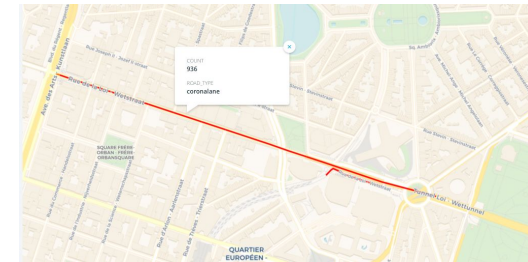Accelerating micro-mobility post covid and ensuring safety of riders

Coronalane: Rue de la Loi (May)

Coronalanes

20 trips/ day in Feb

900 trips/ day in July
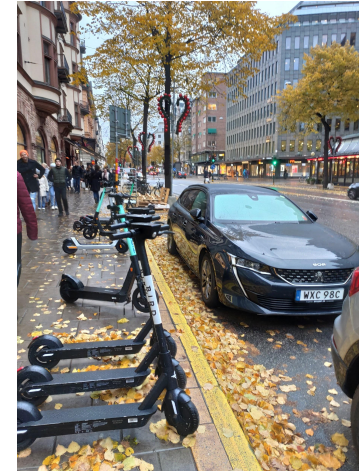
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Stockholm: cluttered sidewalks & parking density

Easily spot streets with cluttered sidewalks and create specific parking infrastructure & policies
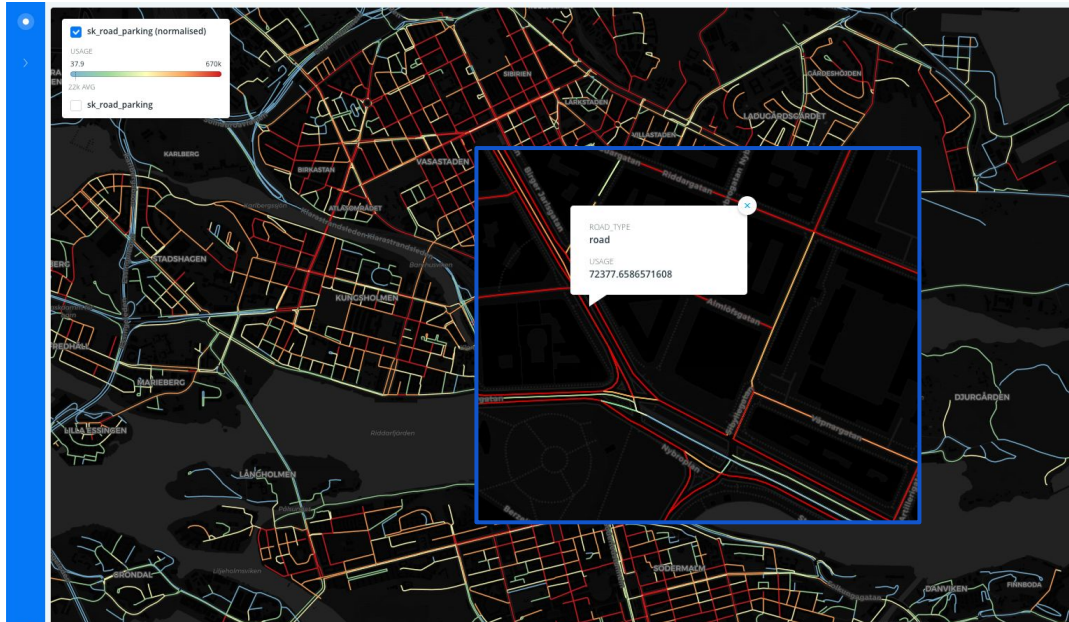
Normalised density of parked devices per street section

Birger Jarlsgatan

Spotting streets with high parking density
Link to citizens complaints

→ Parking infrastructure (repurpose parking bay)
→ No-parking policies on these streets

Digitally expressed policies to operators

Reducing ambiguity and communication complexity

Policy Name : Bruxelles Plaisir d'hiver

The area of Plaine de Jeux Quai à la Houille will be forbidden to all "cyclo-partages" from 7am to 11pm the next three weekends. The area will also be forbidden the following two days after the last weekend for cleaning efforts.
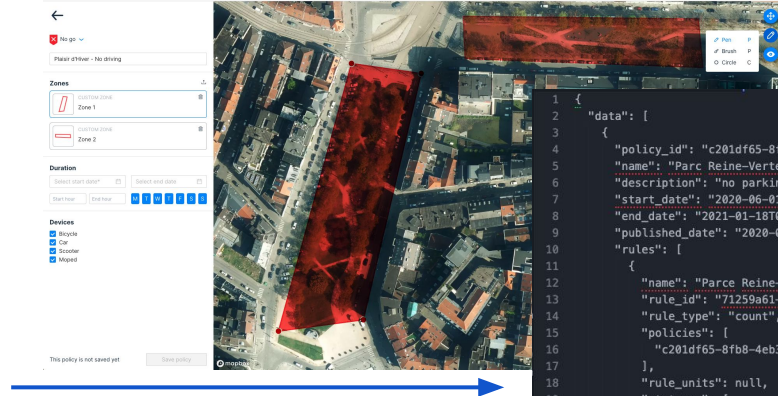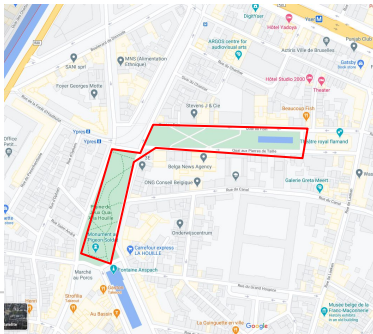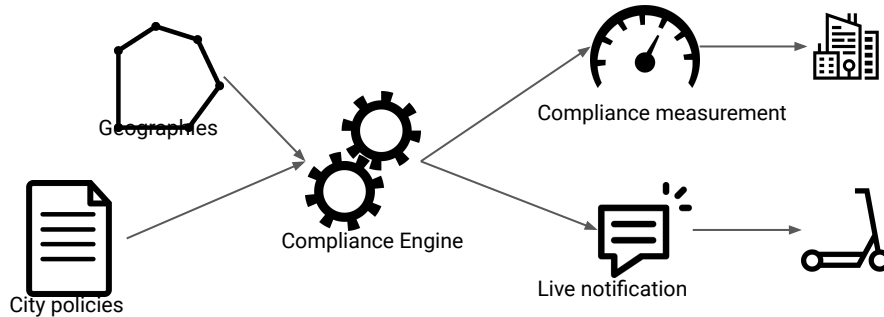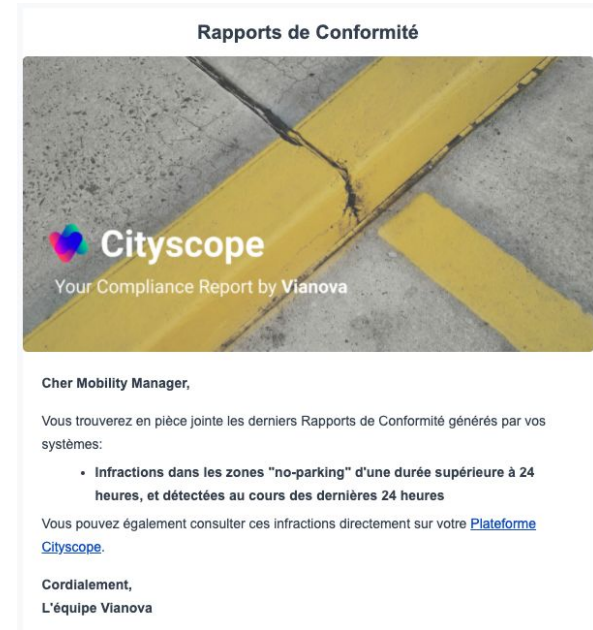
Policy API

```
{
  "data": [
    {
      "policy_id": "c201df65-8fb8-4eb3-b987-e377515b9eb1",
      "name": "Parc Reine-Verte",
      "description": "no parking zone from brusels open data",
      "start_date": "2020-06-01T00:00:00Z",
      "end_date": "2021-01-18T00:00:00Z",
      "published_date": "2020-09-11T03:46:39.265719Z",
      "rules": [
        {
          "name": "Parce Reine-Verte",
          "rule_id": "71259a61-9fad-4f0f-83f7-908a1db6e5be",
          "rule_type": "count",
          "policies": [
            "c201df65-8fb8-4eb3-b987-e377515b9eb1"
          ],
          "rule_units": null,
          "statuses": [
            "available",
            "unavailable"
          ],
          "geographies": [
            "d89ac02a-f4f9-4699-be6b-d429b3feef25"
          ],
          "vehicle_types": [],
          "propulsion_types": [],
          "minimum": null,
          "maximum": 0,
          "start_time": "22:00:00",
          "end_time": "22:00:00",
          "days": [],
          "messages": {},
          "value_url": ""
        }
      ],
      "city": "Brussels",
      "prev_policies": [],
      "provider_ids": []
```
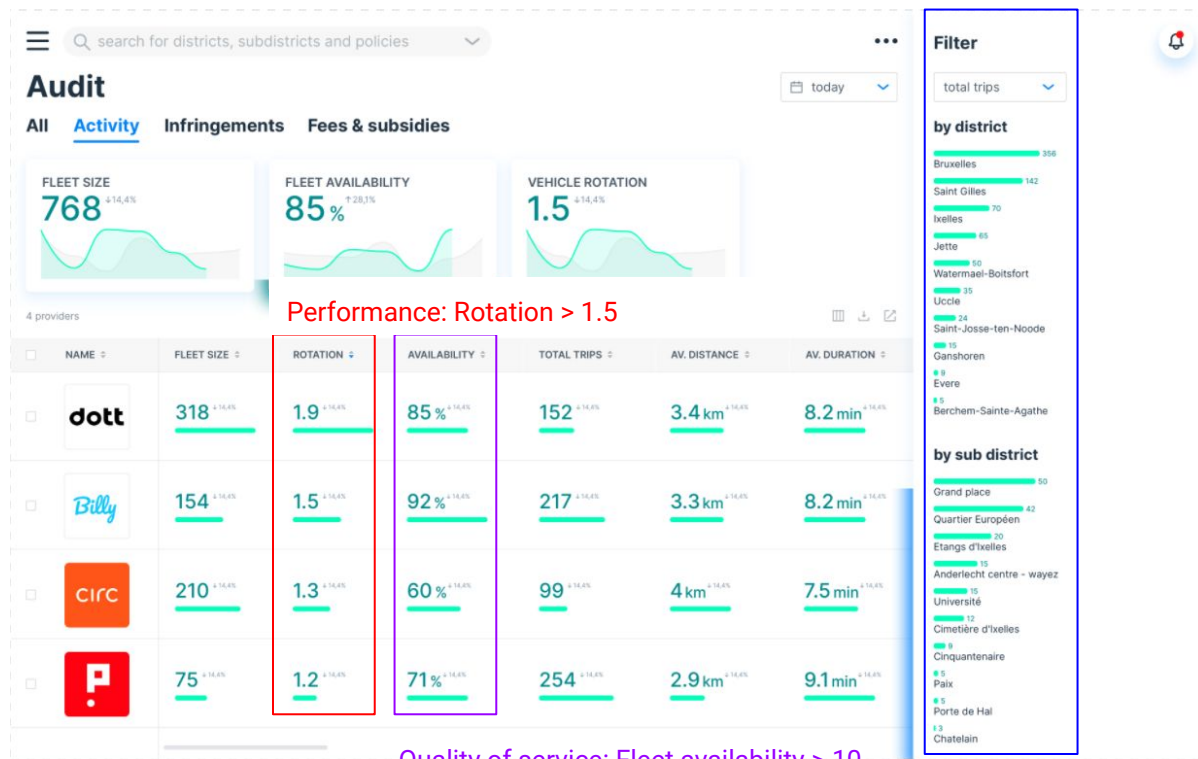
Bruxelles: No-parking zones & violation notifications

Improve parking compliance of operators & shorten communication span

No-parking zones

Rapports de Conformité

Cher Mobility Manager,

Vous trouverez en pièce jointe les derniers Rapports de Conformité générés par vos systèmes:

- **Infractions dans les zones "no-parking" d'une durée supérieure à 24 heures, et détectées au cours des dernières 24 heures**

Vous pouvez également consulter ces infractions directement sur votre Plateforme Cityscope.

Cordialement,

L'équipe Vianova

Geographies → Compliance Engine → Compliance measurement / Live notification
City policies

	A	B	C	D	E	F	G	H	I	J
1	rule_id	rule_type	vehicle_id	rule_name	policy_name	longitude	latitude	city	provider_name	via_id
2	c348a5fc-803c-4761	No Parking	MnhUZMoleO6x0JIxI	Parc Josaphat	Parc Josaphat	4.384381	50.866018	Brussels	Dott	7852
3	08e211d9-0275-409	No Parking	4zubsAA134Paw757I	Zone UNESCO	Zone UNESCO	4.354152	50.846898	Brussels	Dott	13203
4	48b16870-02ac-46b	No Parking	ZanxNWiDc23PI4tm1	Gare Centrale	Gare Centrale	4.356803	50.84522	Brussels	Dott	52025
5	c348a5fc-803c-4761	No Parking	F3AuIrYjgO53VVgoc	Parc Josaphat	Parc Josaphat	4.381214	50.864283	Brussels	Dott	54024
6	c348a5fc-803c-4761	No Parking	0BIF8dDS2GalMqHA	Parc Josaphat	Parc Josaphat	4.38955	50.859532	Brussels	Dott	62073
7	a727eff3-a964-48f6-	No Parking	XKR9gF9TpBvA5xNI	Gare du Midi	Gare du Midi	4.335125	50.836614	Brussels	Dott	62426
8	d7467321-4e68-5fb7	No Parking	d7467321-4e68-5fb7	Parc Josaphat	Parc Josaphat	4.384201	50.865784	Brussels	Poppy	82083
9	c348a5fc-803c-4761	No Parking	b7105421-e953-5ee	Parc Josaphat	Parc Josaphat	4.383862	50.865872	Brussels	Poppy	81444
10	08e211d9-0275-409	No Parking	ACKYKS	Zone UNESCO	Zone UNESCO	4.35194	50.84834	Brussels	Lime	74e01a88-be8a-473

Fixing caps (or not) & requiring high quality of service

Performance: Rotation > 1.5

Quality of service: Fleet availability > 10

Equity: fleet distribution by district

Audit Equity:
- Fleet distribution in cities

→ Policy: distribution requirements

Audit Performance:
- Vehicle rotation

→ Policy: reduce/increase caps

Audit Quality of service:
- Fleet availability

→ Policy: reduce/increase caps

Key takeaways

- Enable data sharing with operators, privileging the **MDS format for regulation & planning**

- **Comply with GDPR**: purposes, data minimisation & retention, systems security

- Engage with a range of operators that could **serve your city mobility objectives**

- Use a micro-mobility management system, like Vianova.io, **to control, regulate, plan and monitor**
  - Cost-efficient: development costs shared between 10-15 cities
  - Experienced: GDPR compliance, data quality & policy management
  - Transparent: Open-API

- Engage into a **virtuous circle of Build-Measure-Learn**
  - **Collaborative** relationship with operators

Thank you for listening & glad to answer any question

Contact me for information:

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