Instant System

"Provider of MaaS solution"

UITP – Ride2Rail – IP4MaaS

12 May 2022

AGENDA

Instant System

MaaS and its complexity

MaaS : Step-by-Step : Use case Annecy (France)
➢ **Passenger information applications**
➢ **Integration of ticketing**
➢ **"Light" integration of Mobility Service Providers**

Mobility as a Service : Use case Brussels (Belgium)

Return of Experience

Questions & Answers

instant system

Introducing Instant System

2013	2014	2016	2018	2019	2020-2021
Creation of the company	Product Launch	First strategic customers	First regional customers	First MaaS & Boutique	New Premium MaaS
By Yann Hervouet & Xavier Lecomte	Route calculator & mobile app dev	Ile de France Mobilités, Var, RATP Dev, Keolis...	New Aquitaine, Pays de la Loire, Grand-Est	RATP, Valence, Cannes...	Brussels, Marseille, Lyon...

Introducing Instant System

85 [+]

Customers
Ile de France, Pays de la Loire, Brussels,
Lyon, Nouvelle-Aquitaine, Marseille, etc.

110 [+]

Employees
R&D, Produit, Sales, Mobile,
Web, Marketing/Com.

2

Strategic Partnerships
Keolis & RATPdev

8 M€

Fundraising 2021
International Development
and MaaS Enterprises

MaaS – Mobility-as-a-Service

instant system

MaaS Definition

While there is no unanimous definition of MaaS, the most common accepted is that it is an integrated system offering information, reservation, purchase and validation for as wide a range of mobility services as possible. This means a single account where the users define their profile, preferences and where they can manage their purchases and subscriptions for all modes.
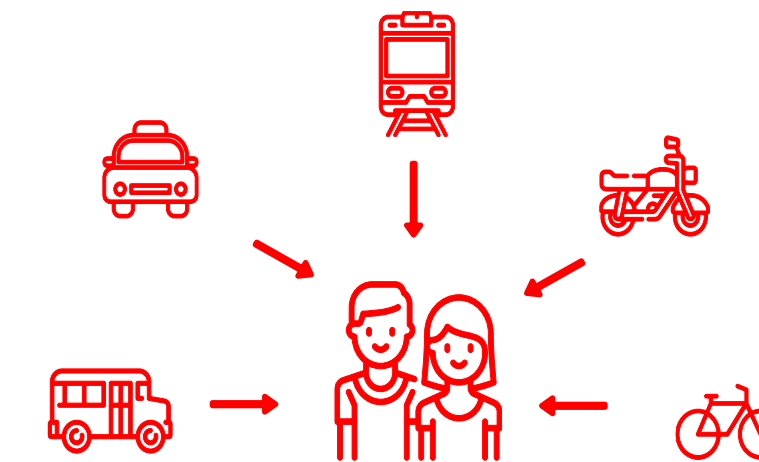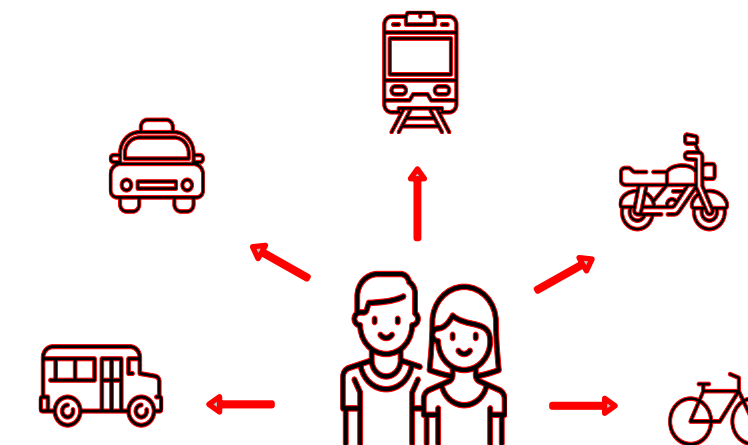
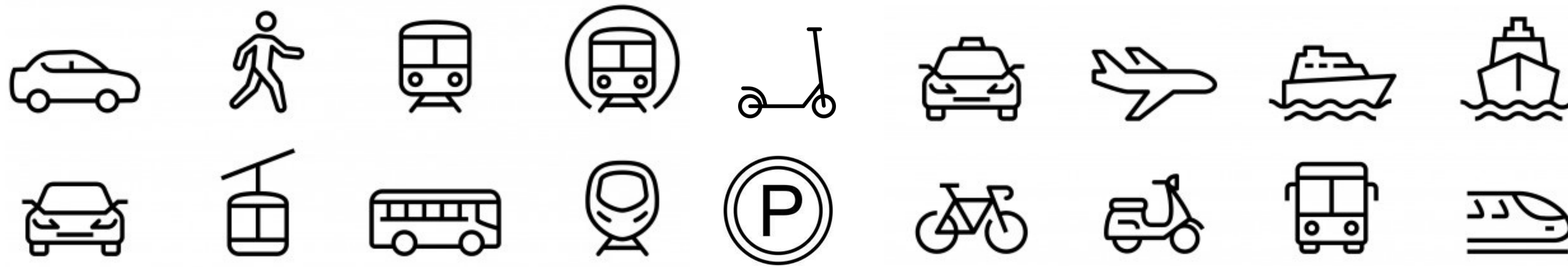Retail

Mobility

From a Fragmented choice

To an Integrated choice

amazon

MaaS

instant system
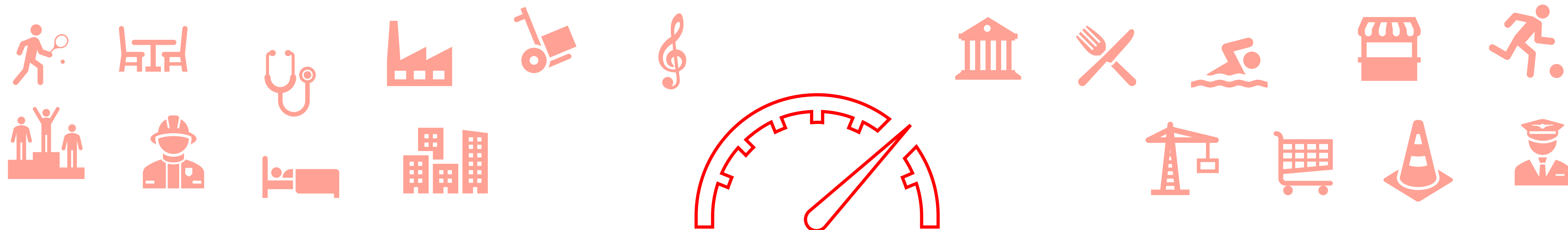
MaaS for everyday mobility for all

Incorporates all local modes of transport

Ensure access for all and inclusiveness by integrating all tariff schemes

Include all local points of interest

instant system

Maturity level of MaaS solutions

Level 4
*Consideration of societal objectives
(public policies, incentives...)*

Level 3
*Level 2 + booking
and payment (subscriptions, packages...)*

Level 2
*Level 1 + booking
and payment (single trips)*

Level 1
*Integration of traveller information only
(multimodal planner)*

*Incentive
Policies*

*All the available
fare options*

*Sale of single
tickets*

Route planning

instant system

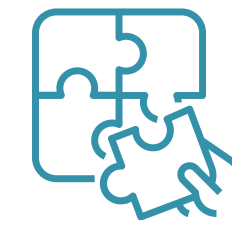# Deploying a MaaS project - It starts with understanding the territory, its actors, its needs and its perimeter.

Define the territory hedging

Identify operators and analyse their offer

Analyze complementarities for effective hedging
Must have / Nice to have

Analyze the technological maturity of the selected operators

Define the contours of the business model and partnership contracts
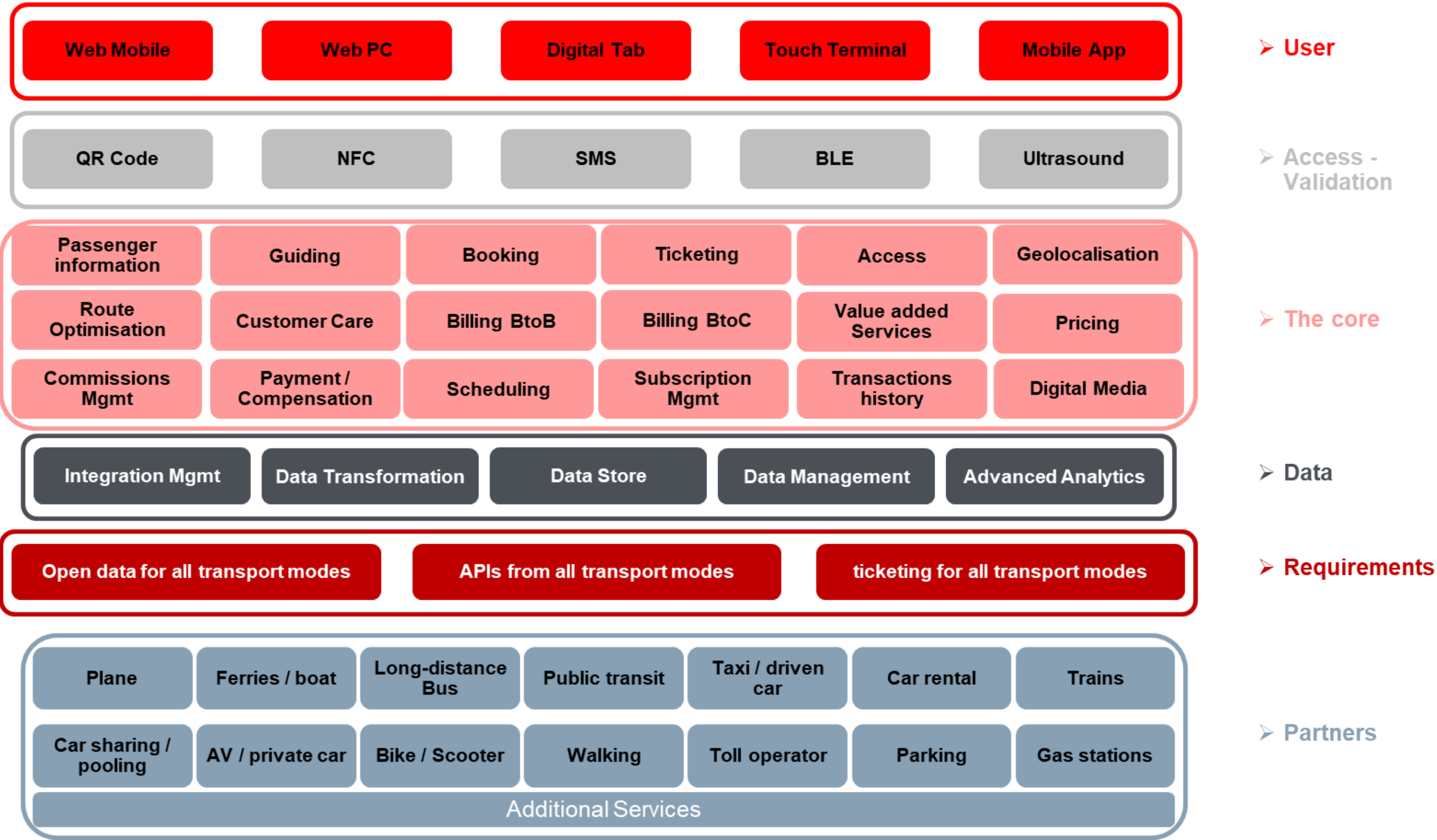
Study and analyse expectations user

instant system

The technical complexity behind MaaS

Analyze the technological maturity of the selected operators

Not all mobility operators are digitalized, or ready to be integrated by a third party

Do not underestimate the integration time of the different actors involved

Web Mobile	Web PC	Digital Tab	Touch Terminal	Mobile App	➤ **User**

QR Code	NFC	SMS	BLE	Ultrasound	➤ Access - Validation

Passenger information	Guiding	Booking	Ticketing	Access	Geolocalisation	➤ **The core**
Route Optimisation	Customer Care	Billing BtoB	Billing BtoC	Value added Services	Pricing	
Commissions Mgmt	Payment / Compensation	Scheduling	Subscription Mgmt	Transactions history	Digital Media	

Integration Mgmt	Data Transformation	Data Store	Data Management	Advanced Analytics	➤ Data

Open data for all transport modes	APIs from all transport modes	ticketing for all transport modes	➤ **Requirements**

Plane	Ferries / boat	Long-distance Bus	Public transit	Taxi / driven car	Car rental	Trains	➤ Partners
Car sharing / pooling	AV / private car	Bike / Scooter	Walking	Toll operator	Parking	Gas stations	
Additional Services							

instant system

Annecy

Location: On a lake nearby the Alps and only 40 km from Geneva
A place for
- boating in the summer
- skiing in the winter

-> this has an influence on the bus operation along the year

Year: 13th Century -> very narrow street in the center of the city
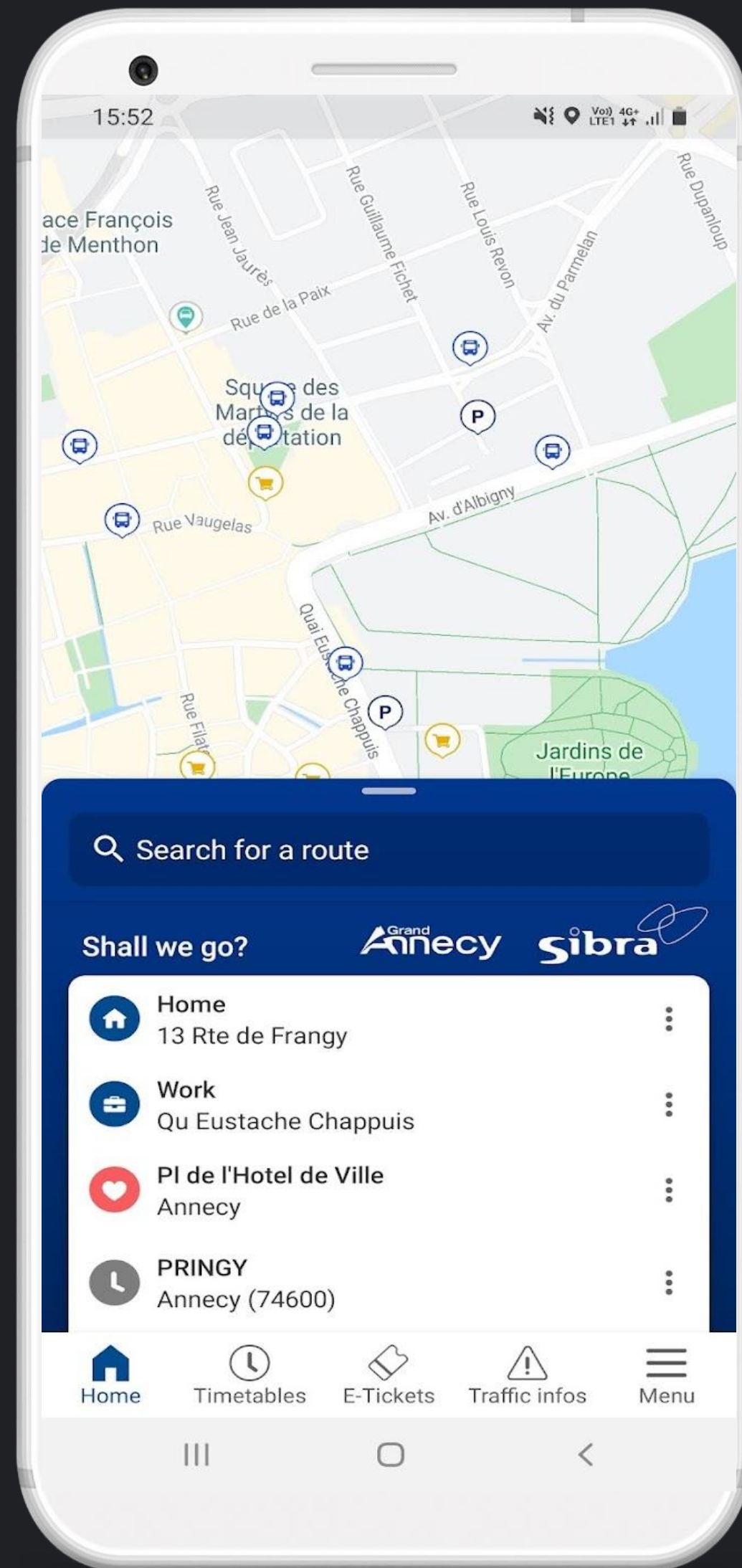
Number of inhabitants:
➢ in the City ~130 000
➢ in the Metropole ~208 000
➢ During summer, the city hosts up to 700 000 visitors

Transport:
➢ Public Transport : Bus
➢ Taxi
➢ Car-Club
➢ Bike sharing in free-floating
➢ Train station : inter urban and long-distance (Mobility-Hub)
➢ Park & Ride

instant system

Passenger information applications

The Must-Have

➢ **Journey Planner: multi and Intermodal, including Public Transport & private vehicles (i.e. bike, car, e-scooter)**
➢ **Quick access button:**
   ○ **The list of the lines & the stops**
   ○ **Realtime information**
   ○ **disruptions (i.e. roadwork on the line that can cause delays)**
➢ **A map with all the Public Transport lines & stops**

The Nice-to-Have

➢ **Vehicle geolocalization on a map**
➢ **Realtime disruption(s)**
➢ **Other Mobility Services managed by the PTA/PTO: Parking, Bike & e-Scooter, etc**

ANNECY

➢ **2016 : Journey Planner including PT, private vehicle (Car & Bike) and outside Parking (Park & Ride)**
➢ **2017 : integrating parking in building with real-time availability**

instant system

Integration of ticketing
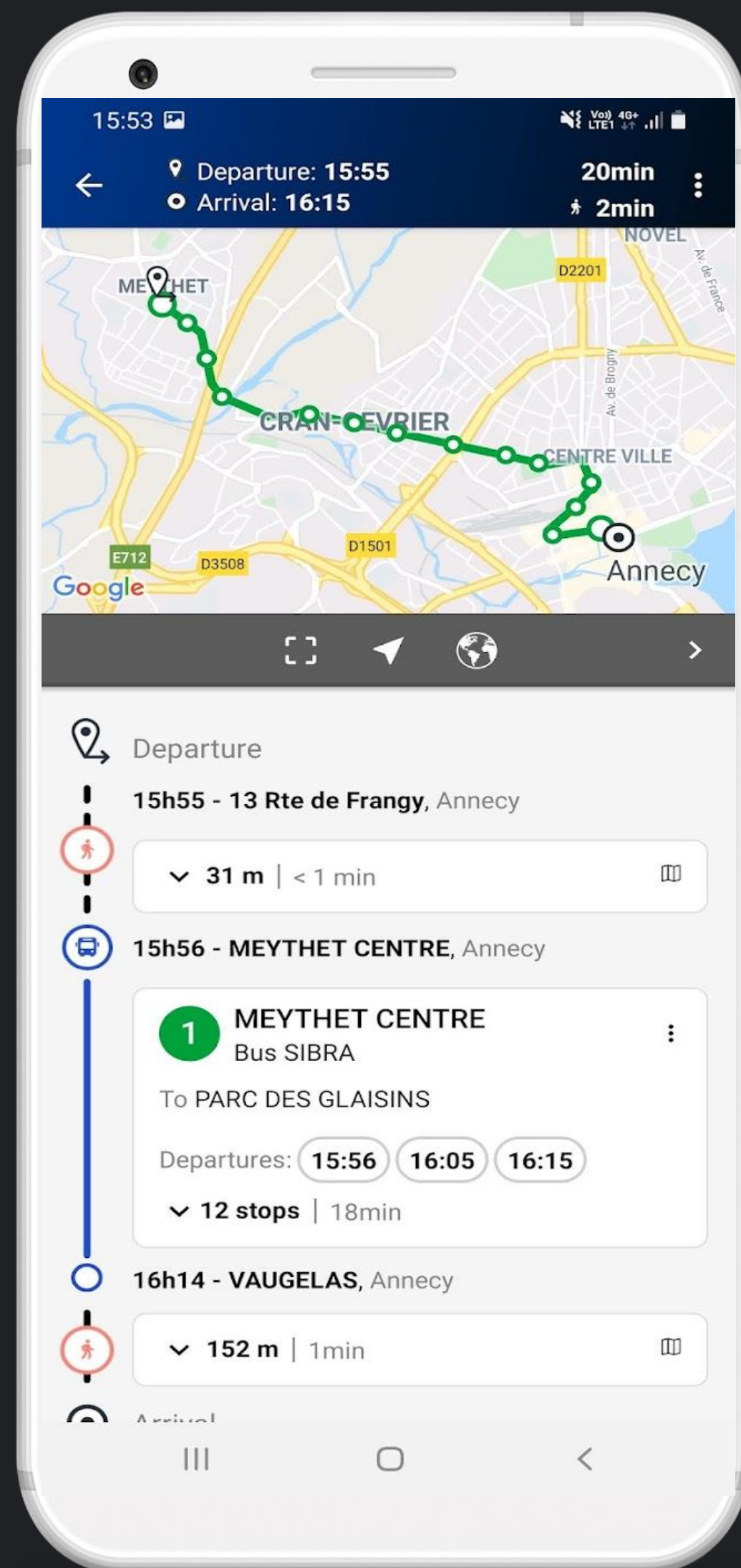
Different types of tickets

➢ For local people : Single tickets or by bundle of 10 -> for occasional travelers
➢ For visitors : Day pass - Weekend pass - Weekly pass
➢ For regular travelers : Monthly pass - Yearly pass - School pass

Note: the fares could be by time, distance, number of stops, etc.

Different types of ticketing solution
➢ Self-validation
➢ QRcode scanned by the phone
➢ QRcode displayed on the phone
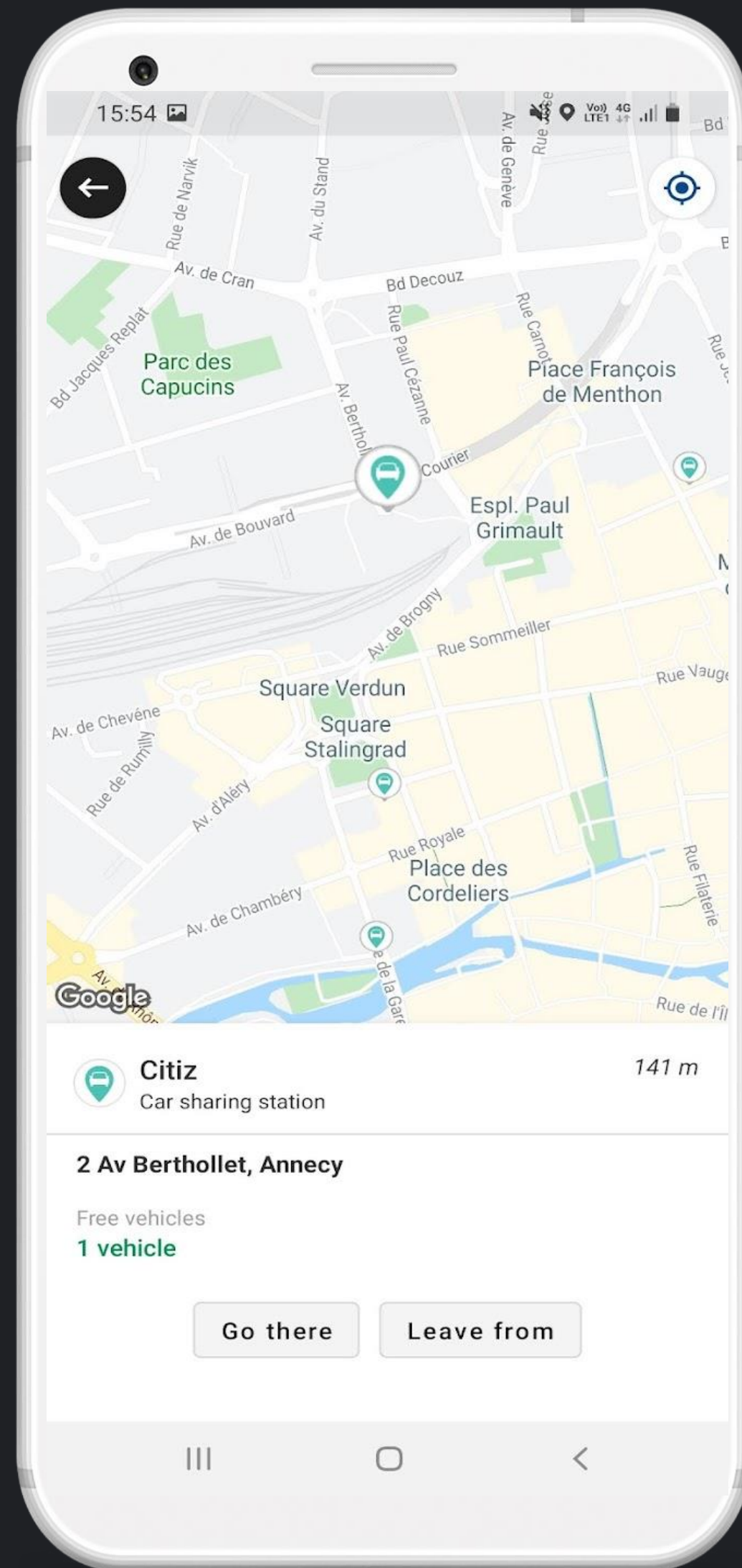➢ Bluetooth LE
➢ NFC

ANNECY

➢ 2018 : M-Ticket integration

instant system

"Light" integration of Mobility Service Providers

"Light" integration: Deeplinks

Note: contract between the MaaS Operator & MSP is key

The first level of MaaS is adding the information of private MSP
- ➤ **geolocation**
- ➤ **availability (free-floating and station based)**
- ➤ **price**
- ➤ **information related to the vehicle (especially for the electrical ones)**

Important: this integration doesn't allow any booking or payment. The traveler is automatically redirected to the application of the MSP chosen

This type of integration enable inter and multimodal journey planner between public and private MSP

ANNECY

- ➤ **2019-2020 : deep-link integration with Citiz (Carsharing)**
- ➤ **2021-2022 : full integration with Citiz (book and pay without any redirection)**

instant system

Brussels

Location: Capital of Belgium and Center for the EU

Year: Middle-age for the oldest part
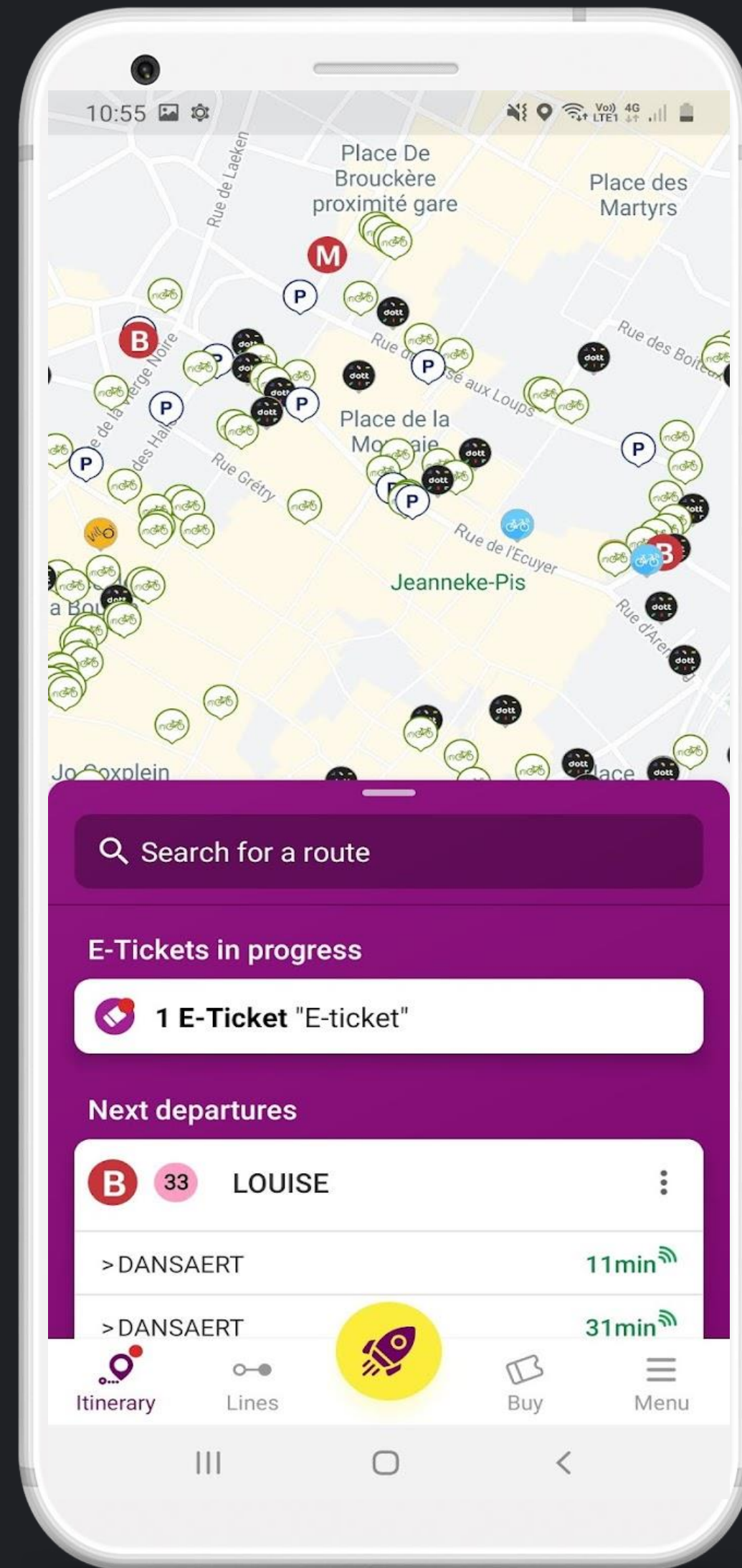
Number of inhabitants:
- in the City ~180 000
- in the Metropole/Region ~1 200 000
- Around 9 000 000 visitors / year

Transport:
- Public Transport : Bus, Tram, Metro, Boats
- Taxi & Ride-hailing
- Car-Club & rental car
- Train station : inter urban and long-distance (Mobility-Hub)
- Park & Ride
- Bike, eScooter & Moped

instant system

Mobility as a Service

"Full" integration (no redirection)

Note: contract between the MaaS Operator & MSP is key

The next level of MaaS is a complete integration of MSPs within the MaaS app
- ➢ **geolocation**
- ➢ **availability (free-floating and station based)**
- ➢ **price**
- ➢ **information related to the vehicle**
- ➢ **booking**
- ➢ **payment**
- ➢ **unlocking**

Next step

Creation of "mobility packages" (bundles) by the MaaS operator (PTA or PTO)

instant system

Return of Experience

Making the difference between Cities : Big & Medium/Small
- ➢ **Big Cities : several brands for each Mobility Modes expected -> player with a mature technology**
- ➢ **Medium & Small Cities : not every Mobility Modes are operating and only brand for each -> and mainly local brand with uncomplete API to work with (when they have one)**
- ➢ **The legacy solution could also be a challenge to integrate (i.e. ticketing, physical gates, etc.)**

Budget : most of the "MaaS" projects are very ambitious without the suitable budget
- ➢ **MaaS is seen as a simple App -> so it can not be expensive to develop -> a need to "educate" the collectivities (especially the small ones) -> the step-by-step is the best approach**

Data : Production & Management
- ➢ **Producing quality & real-time data at the PT level is still an important investment -> Users are now expecting to be able to see the bus on a map like Uber (in many network the driver's union is against!)**
- ➢ **Open-Data (Public & Private) : the Must-Have versus the Nice-to-Have -> under which format and who is responsible to manage it and who would have the right to access it and under which conditions -> not the same impacts for a Big or Medium cities**

MSP : Important to work with them from the beginning of the project
- ➢ **MaaS should bring all the companies working in the Mobility (& Immobility) together -> it is rarely the case**

instant system

Return of Experience

Payment & Billing : Cost of the commission (credit card, PSP, acquisition bank, etc.)
➢ Misunderstand of the real cost of the Mobile payment, especially for very small amount like the single ticket
➢ Rarely mentioned, refunding an amount has a cost -> who is paying? MaaS Operator? MSPs? Both? The customer?
➢ Important to understand the "tax" part -> the acquisition on behalf of third parties has to follow tax rules too often ignored

End-users :
➢ Rarely invited before the launch of the MaaS Solution -> MaaS should/could start with a pilot phase with restricted number of users selected to represent the full diversity of local citizens. (i.e. Brussels started with 1000 users up to 8000 12 months later)

Customer-Service :
➢ Ensuring the same level of quality for each modes -> knowing that each mode doesn't have the same quality level
➢ Who is responsible for what -> importance of the contracts

Miscellaneous :
➢ MaaS will not meet everyone's mobility needs, at least not initially -> it is important to set realistic goals based on the integrated mobility offer in the specific local context.
➢ It is difficult to compare all the MaaS projects & initiatives between each other -> this brings interrogation and potential frustration

instant system

instant system

Thanks!

Aurelien Cottet

International Sales Director - Instant System
aurelien.cottet@instant-system.com - +33 7 57 08 83 82