

A stylized blue figure on the left side of the slide, composed of a circle for the head and three curved shapes for the arms and legs, all in a light blue color.

Using and promoting innovation in a MaaS environment

POLIS-ERTRAC Working Group meeting

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Paris, 18th October 2019



Why innovate?



Mobility is currently undergoing a major transformation

Social changes impacting on travellers' mobility



- Urbanisation
- Congestion issues
- New sharing and collaboration economy
- Transformation of train stations into inter-modal centres
- Daily use of web platforms (Uber, Netflix, Spotify, etc.)

Technological breakthroughs & digital transformation



- Digitisation
- Social networks
- Big Data & Open Data
- IOT & Connected Objects
- Self-driving cars
- Artificial Intelligence & robotics

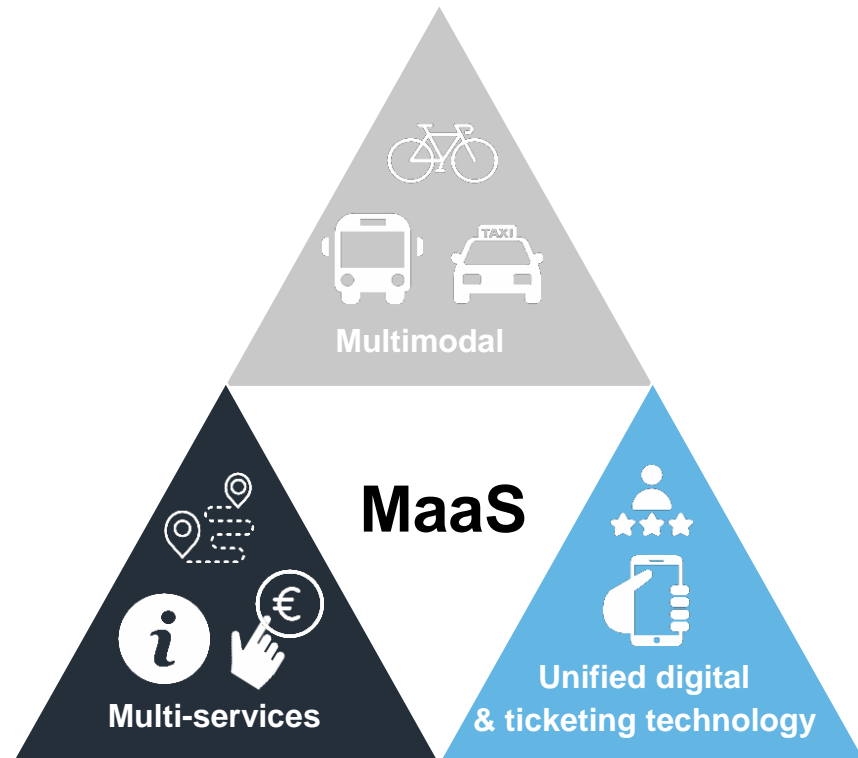
Emergence of new forms of mobility set up by private players



- Free-floating bike / scooter sharing: Gobeel bike, Coup, etc.
- Car-pooling: Less, Blablacar, etc.
- Car-sharing: Drivy, Zipcar, etc.
- Mini-cabs / taxis: Taxify, Uber, etc.
- Pure players / main digital players: Citymapper, Waze, etc.

In answer to this transformation: IDFM is launching its **Mobility as a Service (MaaS)**

With Mobility as a Service (MaaS) users can access a **multimodal, multi-services offer** in urban or suburban areas with a single subscription* and pricing system using one or more apps



* The subscription is generally completed by other ticketing technology models, such as the "Pay as you Go" system

The benefits of Mobility as a Service (MaaS)



Improving services for travellers



Regulation and control of Mobility as a Service



Information about travelling customers and usage



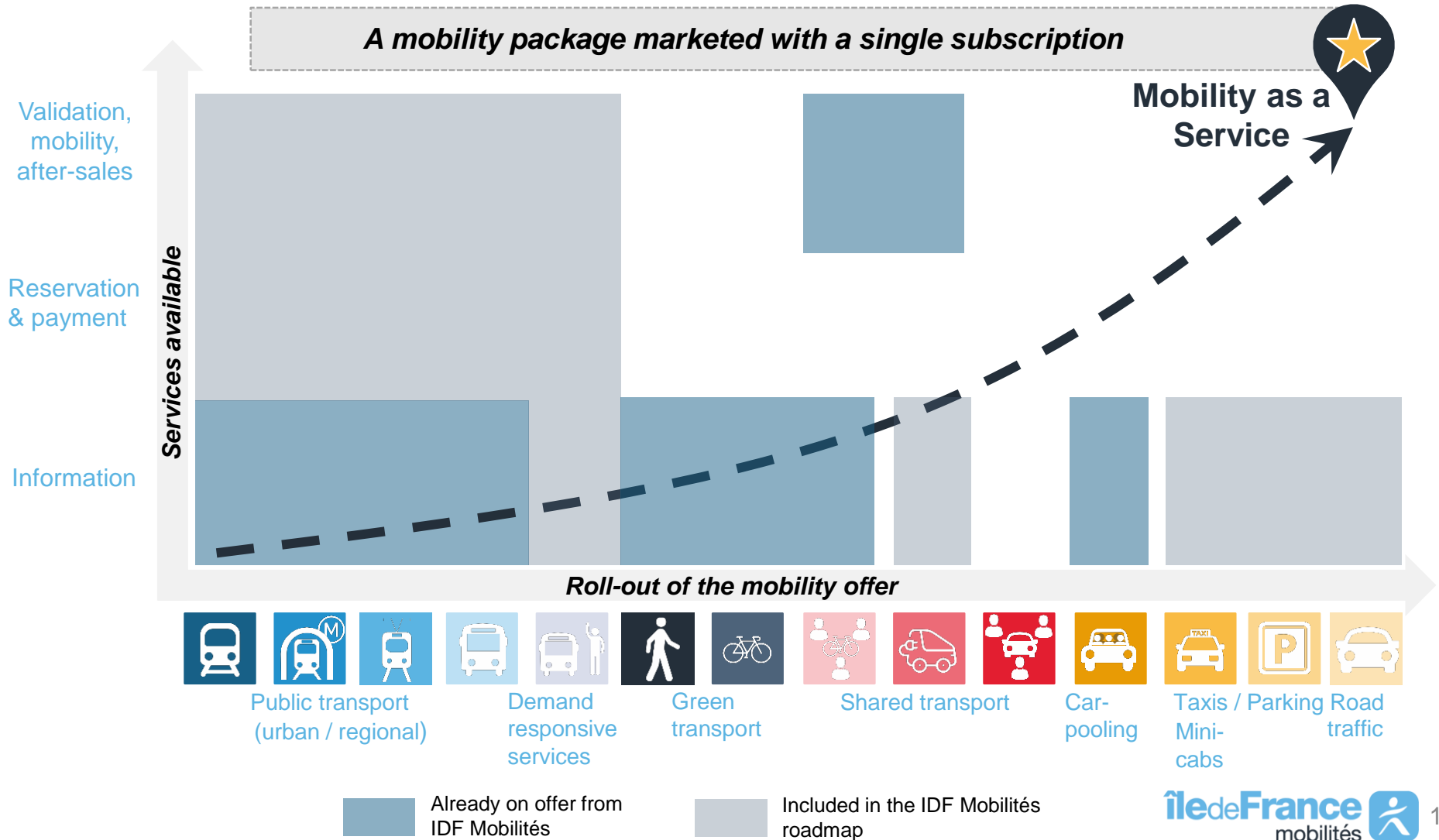
Innovation for sustainable and inclusive mobility



Keeping investment and public spending under control

*Mobility as a Service

Our ambition is to combine all public and private modes of transport and offer a seamless user experience



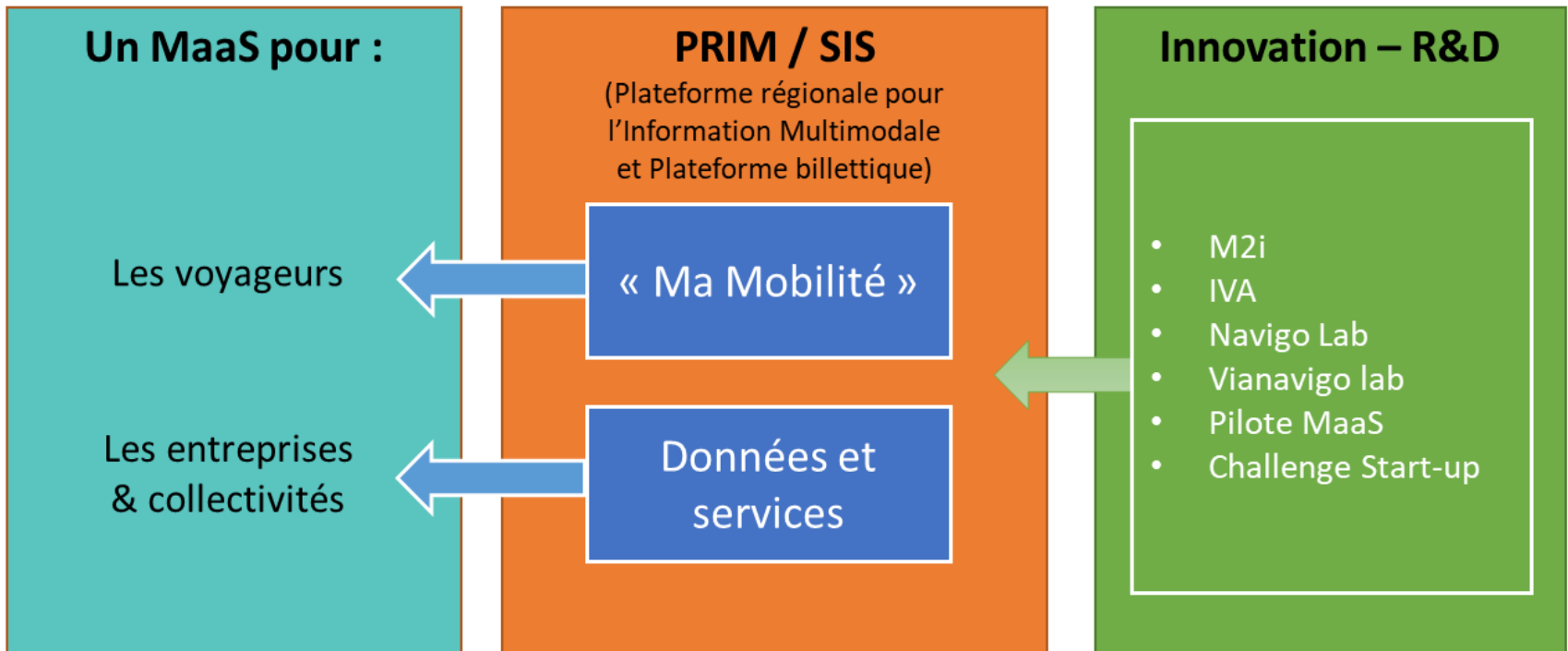


Current projects



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Current projects helping to develop the Île-de-France Mobilités MaaS



A MaaS for travellers, adapted to the need for hybrid, seamless mobility. A MaaS for partners developing projects for their own customers.

Industrial and effective systems providing very high quality services and useful data for IDFM and its partners.

Innovation to provide data for a digital roadmap aimed at opening up to technological opportunities and new players.

R&D: M2i PROJECT (Integrated Mobility in Île-de-France)

- Aim:** to develop a top-quality traveller information service:

NEW DATA

(historic data, FCD
crowdsourcing data,
predictive data, etc.)

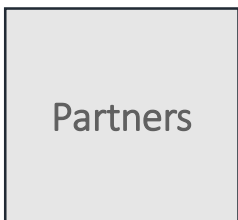
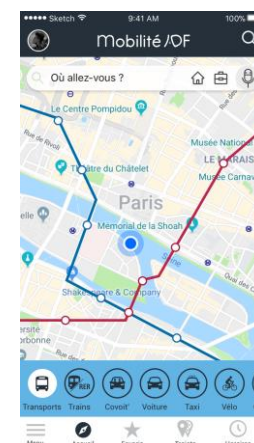
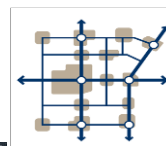


UNIQUE SERVICES

(predictive multimodal GPS,
interfacing with the vehicle,
with car-sharing, mobility
tips, etc.)



ENRICHING THE IDFM MOBILITY PORTAL



R&D: IVA PROJECT (Augmented Traveller Information)

- **Partners:** IRT SystemX, l'IFSTTAR and SNCF
- **Duration:** 4 years
- **Aims:**



- Identification des situations anormales
- Qualification de l'offre de transport en temps réel



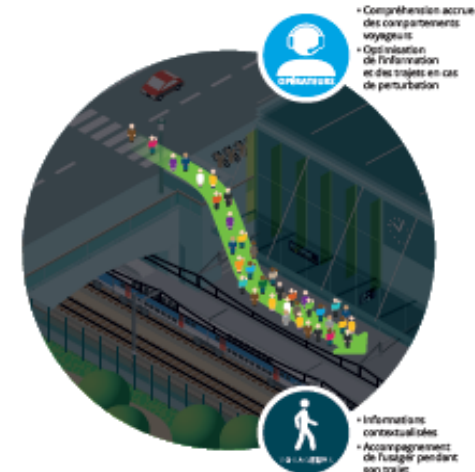
- Lissage et régulation de la charge sur le réseau
- Combinaison de calculateurs ad hoc

- Informations qualifiées et prédictives
- Amélioration des trajets multimodaux



- Amélioration des conseils en modes aux usagers

- Informations et accompagnement personnalisés



- Compréhension accrue des comportements voyageurs
- Optimisation de l'information et des trajets en cas de perturbation

- Informations contextualisées
- Accompagnement de l'usager pendant son trajet

PREDICTIVE INDICATORS FOR TRANSPORT NETWORKS

- Predictive analysis models
- Visual display combined with supply and demand

ROUTE CALCULATOR INCLUDING PREDICTIVE INDICATORS

- Distributed multimodal architecture
- Predictive indicators included in calculation parameters

MOBILE APPLICATION BASED ON ARTIFICIAL INTELLIGENCE

- Learning module for travel patterns
- Module for dialogue with user

BEHAVIOURAL STUDIES AND CROWD SIMULATION

- Analysis of impact of traveller information on behaviour
- Simulation of travellers' journeys

Vianavigo Lab: all the mobility services in an app



MaaX: IDFM has developed a MaaS* app for travellers

A digital application with features ranging from real-time purchasing information and validation for travellers to use throughout their journey



Public transport



Bikes
Bike-sharing -
E-bikes



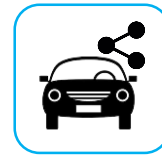
Car-pooling



Walking



Mini-cab/taxi



Car-sharing



Demand responsive services



Park & ride



In-station services



Passenger information



Reservation/purchase



Validation

*Mobility as a Service

Île-de-France Mobilités Challenge

Season 2019: Information for travellers during disruption

- Open to all external / internal project promoters
- Stronger links with **users associations**
- Active participation of the **Region** and **IDFM teams**



3 main aims

To provide users with concrete **solutions**

To raise **awareness** about innovations in mobility

To keep **pace with innovation** in the sector, especially by working hand in hand with start-ups

Challenge: The results 2019

- The challenge helped us identify concrete solutions to improve traveller information during disruption

21 applications with a wide-ranging scope

Measuring passenger numbers, customised alternative routes, data processing to give travellers information in real time, forecasts for traveller flows, assistance for people with reduced mobility or disabled people, taxi/mini-cab sharing, display of free parking places, etc.

3 prize-winners selected by the jury

1

Geotwin
We build bridges between cities and mobility operators

- Suggestions for **alternative routes, taking into account risks of bottlenecks** (current state of network + future situation, given suggested new routes).
- The organising authority can take decisions at its own level based on suggested new routes given in real time.

2

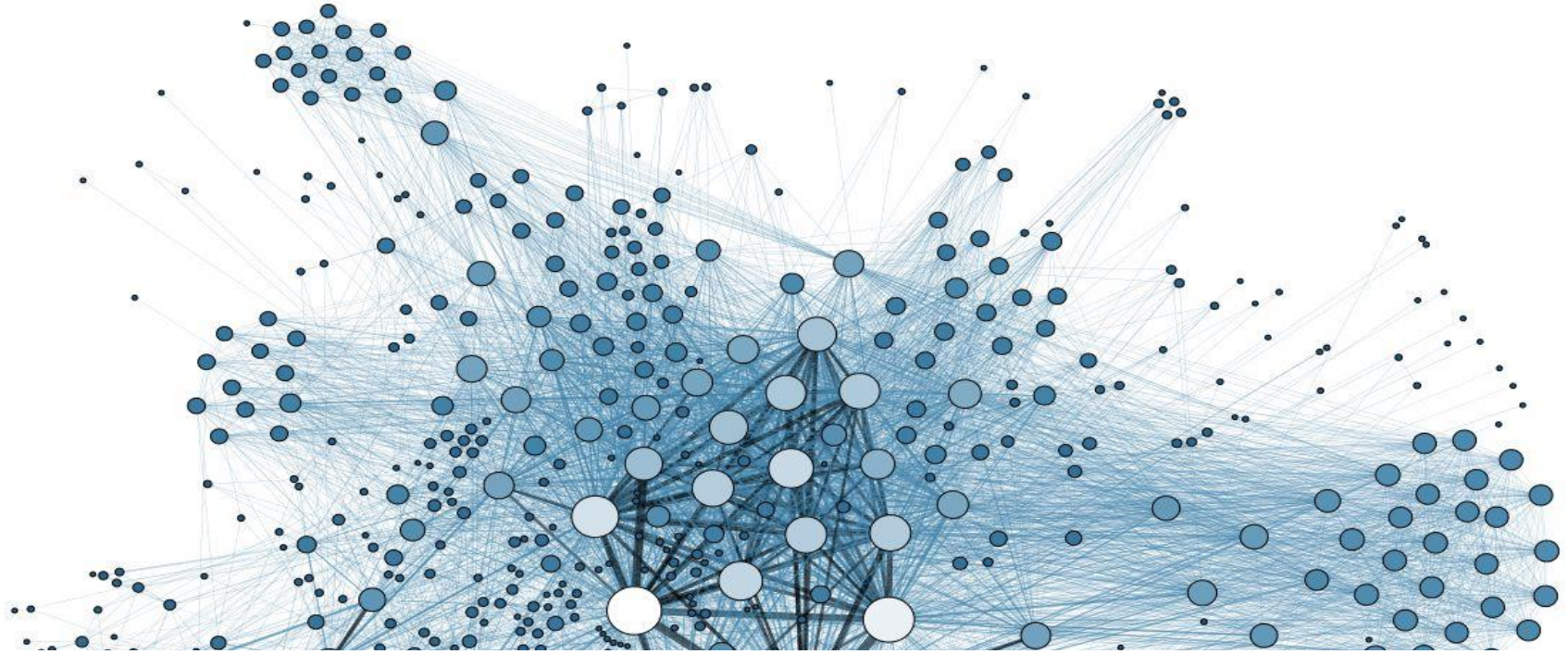
Nextérité
smart semantic solutions

- NextAlert Solution: **information assembled from texts sent by travellers** through a range of channels, the basis for a unified flow of information in real time.
- Also helps travellers **to share information** about alternative routes.

3

uppli.fr

- The La-Poole platform and the "Sortez-moi de là" ("Get me out of here") service: alternatives to public transport by **sharing** taxis or mini-cabs



PRIM: a new platform addressing the issues for MaaS



PRIM aims to develop and centralise information for travellers and to meet two secondary goals

DATA

- Sets of public data already existing on the current Open Data portal (data about lines and stops, predicted transport times, fares, cycling facilities, etc.)
- Sets of private data and API via the development of new partnerships linked to other modes of transport



SERVICES

- Multimodal route planner
- Real-time and predictive information
- Crowdsourcing of information based on travellers' contributions



With a dual aim:



To provide data for the Ile-de-France Mobilités programmes designed for *users*



TO TRAVELLING CUSTOMERS



To make these data and services available to *service-providers* for their own programmes



Citymapper



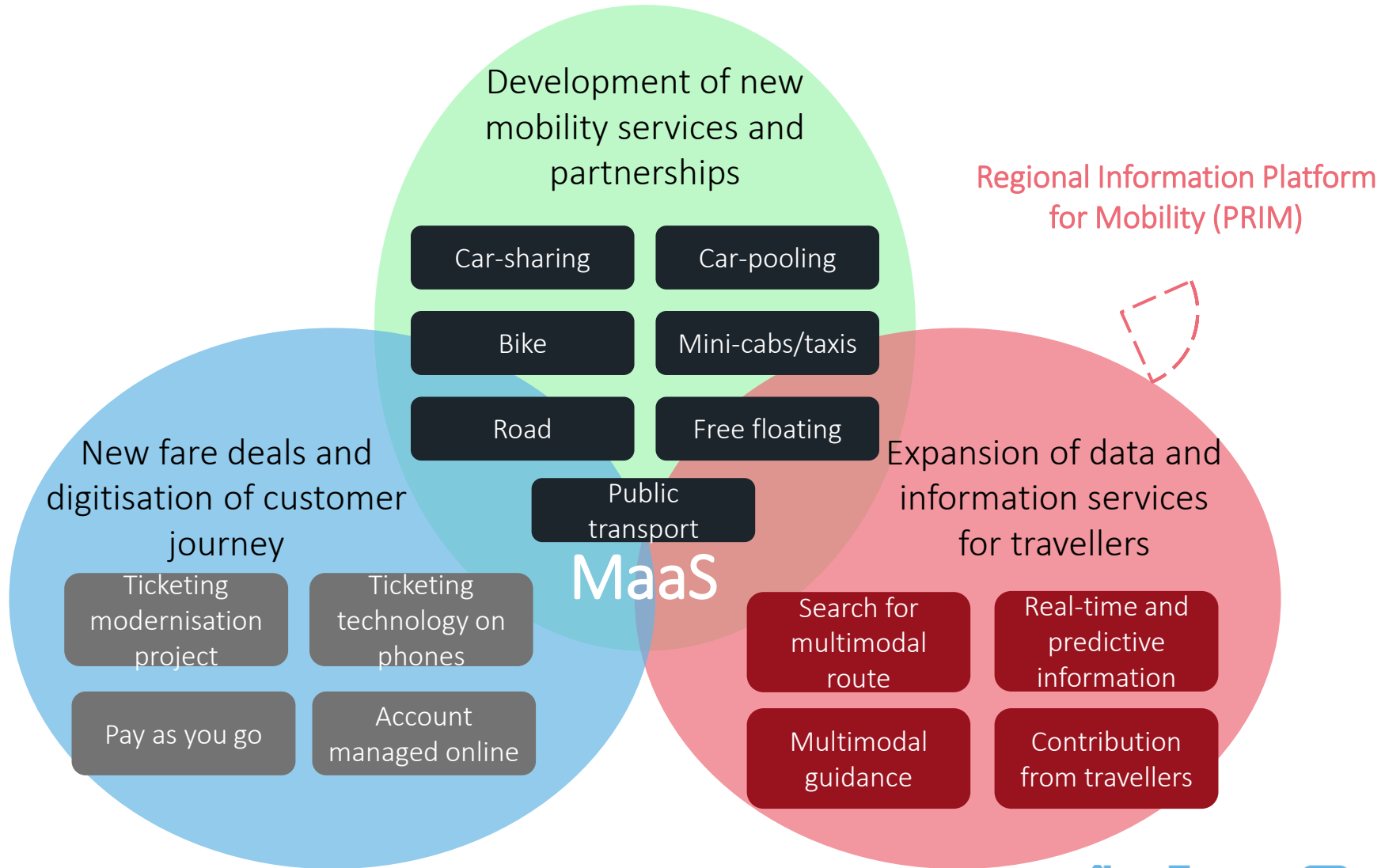
Google Maps



...local authorities, companies (white label)

TO CLIENT COMPANIES / LOCAL AUTHORITIES

The PRIM platform is part of the MaaS project launched by IDFM



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**Thanks for your
attention!**