SmartMove
.brussels

Cracking the nut of city congestion
September 2022
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digital studio
.brussels

IRF GLOBAL

The Context

Fiscal project aiming to improve mobility in the Brussels Region

Brussels, the capital of Belgium and Europe, is a dynamic city, and its citizens, visitors and businesses must be able to flourish here, in a peaceful environment.

However, Brussels also got the notorious title of traffic jam capital of Belgium. This is not surprising since it is the largest city in Belgium, an economic center, and nearly a fifth of the country's population resides in or around the city.
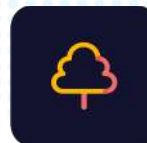
Every working day, countless car drivers lose precious time in Brussels traffic. Despite the various alternatives available, driving a car often remains the top choice.

Our goals

SmartMove was introduced to achieve the following goals by **2030**

30%
less time wasted in traffic

10%
reduction in CO2 emissions from traffic

10%
more kilometers by foot and by bike

18%
fewer kilometers driven by cars during rush hour

Why SmartMove

SmartMove cuts across 4 key domains:

Less time wasted

By leaving the car at home just a few times a week or avoiding peak hours, we make a big impact.
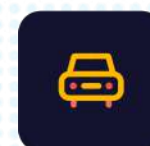
Good for our planet

Less congestion means less harmful exhaust fumes and environmental pollution.

Better health

Whether you live, work or just visit Brussels, we all breathe the same air. And less air pollution means fewer lung and respiratory or cardiovascular diseases.

Greater prosperity

Fewer traffic jams make Brussels more attractive to businesses. That means more jobs, often close to home.

The pillars of SmartMove:

An intelligent kilometer charge based on use
A fair charge base one vehicle use

1

SmartMove is **an intelligent kilometer charge** for all passenger and delivery vehicles in the Brussels-Capital Region, based on the number of kilometres travelled and the vehicle tax power.

The objective of the SmartMove policy and omni-channel ecosystem is to create a **modal shift from vehicle ownership to vehicle usage**, decreasing the current ecological, economical and health impact.

The pillars of SmartMove:

2

The objective is **moving towards a livable city** where residents can breathe again, commuters can reach their destination with ease and quality of life is a priority.

From the Park & Ride to the metro, by bicycle or scooter to the tram ... Using the **'mobility as a service'** principle, users gain more insight into their mobility options and the social cost of their journey.

An intelligent kilometer charge based on use
A fair charge base one vehicle use

A 360 view on mobility
A mobility app that guides you through all transport options

The pillars of SmartMove:

3

Find out what **impact** your mobility choices have on the environment, health, economy and time.

With SmartMove, we all have much something to win. Through smoother traffic, fresh air, better quality of life and higher level of productivity.

An intelligent kilometer charge based on use
A fair charge base one vehicle use

A 360 view on mobility
A mobility app that guides you through all transport options

Awareness on the impact of mobility choices
Discover the impact of your mobility choices

The future of Brussels depends on all of us making smarter moves

The smart kilometer charge

How are we tackling congestion problems in Brussels? With rush-hour technology.

Primary system - variable congestion charge

Base cost per day

Dependent on:

- **The time of day** (peak versus non-peak)
- The **vehicle fuel type** (100% electric vehicles don't pay the base cost)
- The **vehicle tax power** (based on the total cylinder capacity)

+

Cost per km:

Complements the base cost and is dependent on:

- **The time of day** (peak versus non-peak)
- **The amount of km's driven** in the zone

Secondary system - day pass

Fixed price per day:

Dependent on:

- The vehicle tax power (based on the total cylinder capacity)
- The vehicle fuel type

The price of the day pass is equal to a 25-km trip (15km peak hour rate + 10km off-peak hour rate). An above-average number of kilometres driven is taken as the basis for the incentive to use the primary system

* Driving in the weekend and during the night (19:00 – 06:59) remains free.

SmartMove products

SmartMove, a project with multiple connected solutions

SmartMove **App**

The SmartMove app is a mobility solution that allows users to find the most efficient mobility option with the MaaS functionality, track their trip, pay for the tax and get insights in their mobility behavior.

SmartMove products

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SmartMove **Website**

On the Website there is a content hub, a user portal and employer portal, meant for users to easily find information and manage their tax.

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Day pass

The day pass is a solution for people who won't use the tracking system or for those who the day pass is more cost-efficient, they pay a fixed price for one day.

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Dongle
In order to make SmartMove accessible for everyone, there is a dongle solution. This is a small tracking device, installed in your car that will record your trips automatically based on your location and is linked to your SmartMove account.

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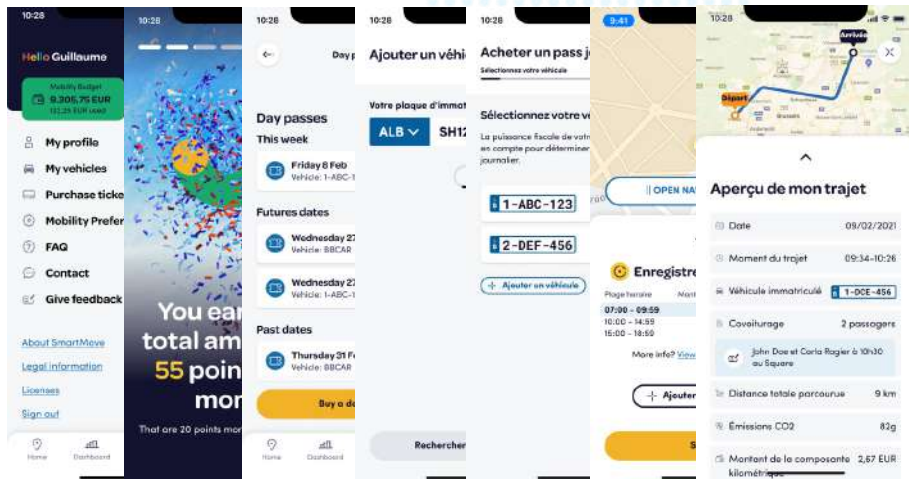
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Presenting the

SmartMove

App

The digital studio approach of BF

The combination of service design & agile delivery.

400+ screens
500+ testers

Interviews with end users
→ understand the real needs

Persona's & Customer Journeys
→ define opportunities for improvement

Conceptual wireframes
→ sketch potential solutions

10+ Clickable prototypes
→ test tangible solutions

Minimum Viable Products
→ Develop, test and iterate

SmartMove Ecosystem
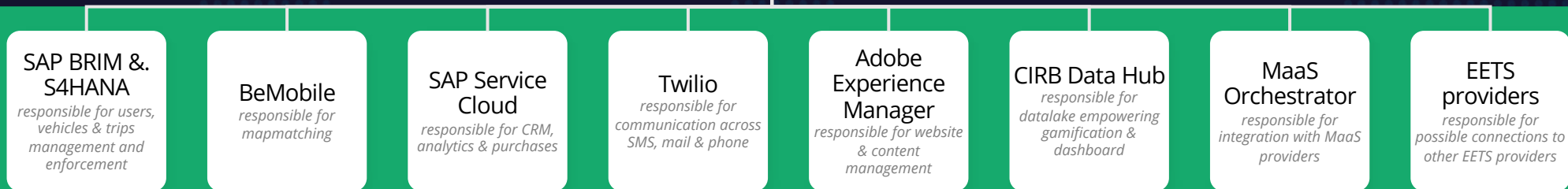
Supported by a future-proof solution architecture

SmartMove
Products

| SmartMove App | SmartMove Website | Daypass | Dongle |

Integrations
Orchestration

Library & Integrations
Flutter app library and Azure services

Unified Ecosystem
Back-end

SAP BRIM &. S4HANA	BeMobile	SAP Service Cloud	Twilio	Adobe Experience Manager	CIRB Data Hub	MaaS Orchestrator	EETS providers
responsible for users, vehicles & trips management and enforcement	*responsible for mapmatching*	*responsible for CRM, analytics & purchases*	*responsible for communication across SMS, mail & phone*	*responsible for website & content management*	*responsible for datalake empowering gamification & dashboard*	*responsible for integration with MaaS providers*	*responsible for possible connections to other EETS providers*

How does SmartMove ensure the privacy of its users?

Handling data GDPR compliant

The privacy of SmartMove's users is our **priority**.

- The Ordonnance strictly defines the purposes for which user personal data can be processed

- "Privacy by design" approach

- Maximum data segregation

Testing strategy

Large scale user testing to test the SmartMove app

The SmartMove app needs to be ready, both from a technical and functional point of view, while empowering users to make informed mobility choices.

Testing the app prior to its release to the broader public promotes the delivery of a robust app through **a** data-driven understanding of user experiences and behaviours. We therefore aim to onboard 5000 testers by the end of 2022.

3 main objectives of the testing strategy

1

Does the SmartMove app work as intended, from a technical point of view?
The feedback from the testers allows the application to be updated and ensures an inclusive mobile application

2

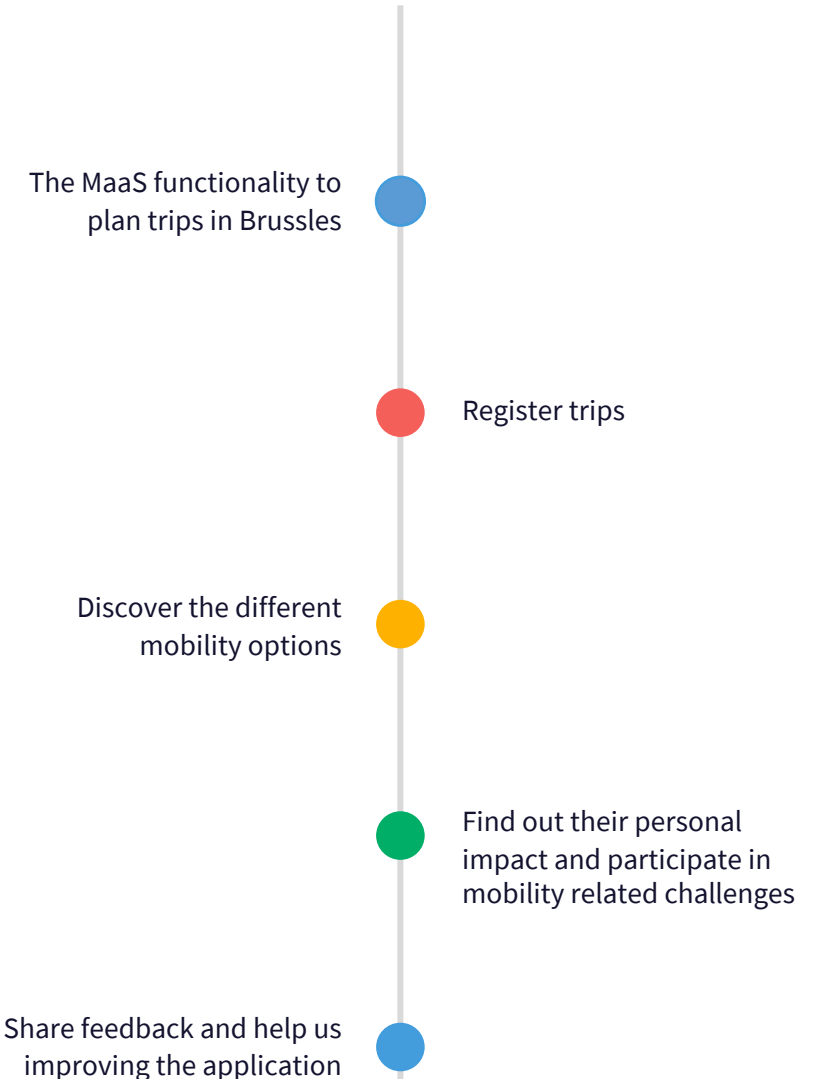**Does the SmartMove app work as intended, from a functional point of view?**
The user's feedback makes it possible to guarantee an optimal and updated user experience

3

To what extent does the SmartMove app influence mobility perceptions and/or behaviors within tester segments?
The given feedback contributes to the decision-making process about mobility in Brussles.

An overview of the functionalities that are tested by the test users

The MaaS functionality to plan trips in Brussles

Register trips

Discover the different mobility options

Find out their personal impact and participate in mobility related challenges

Share feedback and help us improving the application

Testing approach

Progressive scaling

Testing campaign in 3 steps

1

Deliver a sufficiently stable application to an external audience
First testing phase was limited to +/- 50 testers who where implicated in the SmartMove project.

2

Progressive extension of testers
Based on the testing results (quantitative data, surveys,...) Go/no-go decisions are made to increase the number of onboarded testers

3

Guidance and support
Testing team and guides evolve in function of increasing number of testers to guarantee the necessary operational support.

Tester panel

The aim is to build a community of testers that is representative for the population that will be touched by SmartMove (both inhabitants and commuters)

Age group

Segment	Target
18-24	10-15%
25-30	20-25%
31-49	35-40%
50-64	15-20%
>65	5-10%

Family Size

Segment	Target
Living alone or living with roommates	45-50%
Living with partner	20-25%
Living with children • 3 persons • 4 persons • 5+ persons	10-15% 10-15% 5-10%

Preferred mode

Segment	Target
Foot	10-15%
Bike	10-15%
Public transport	10-15%
Car	60-65%
Other	0-5%

Place of Residence

Segment	Target
Brussels Capital Region	55-60%
Outside Brussels Capital Region • Flanders • Wallonia	25-30% 15-20%

Schedule

Segment	Target
Flexible	75-80%
Non-flexible	20-25%

Results of first testing period

Testing period started in may 2022 with 50 testers (Family and friends). From mid-August onwards the testing communty grew to 650 testers.

Recruting testers using only social media campaigns is challenging as well keeping a high level of motivation among testers in the long term.

On a technical point of view
159 bugs were reported (none of them blocking), the number of reported bugs decreased in proportion to the increased number of testers.

On a functional point of view
55 user stories were reported (suggestions for improvement) and a above average Customer Satisfaction Score of 2,96/5 was reached.

Mobility perceptions and behaviours
Positive trends but it is too early to draw conclusions on this testing element.

Support the testing strategy with communication

Authentic, relevant, agile & positive communication

In a nutshell

SmartMove: cracking the nut of city congestion

Cracking the nut of city congestion by combining MaaS, gamification and an intelligent congestion charge, in order to positively impact congestion levels in Brussels.

Next steps

Eco-System activation (EEITS)

Build a solid tester-community

Design and build the Dongle solution(s)

Stabilize and scale the solution(s)

Thank you!