Fare collection
in the prospect of integrated mobility

June 1, 2023

Anna Tailliez

Mobility Advisor

Source: IDFM/Doppel France

Figure 1: Intermodality options in the Paris Metro Region

During a study tour in Île-de-France, our delegation travelled around the region of 12 million inhabitants by foot, transit, and other forms of shared mobility like demand-responsive transit (DRT), express buses, and shared e-scooters. Unlike with individual car mobility, the issue of fare collection is a matter of major importance when moving around with any kind of public and/or shared mobility.

- With the goal of developing an extensive public transport network, the fare-integration strategy implemented in and around Paris also extends to innovative mobility modes developed locally.

- Île-de-France's public transport authority is updating its fare collection supports and payment methods while simultaneously steering its policy goals towards more active, decarbonized and collective transportation modes.

- New fare collection technologies create new possibilities to further enhance the user experience while also bringing new risks for the most vulnerable users.

A fare-integration strategy to encourage multimodality

With 9.4 million trips per day in the region, Île-de-France's public transport network is **one of the biggest in the world**. It is managed by a dedicated public transport authority, *Île-de-France Mobilités* (IDFM), which works hand in hand with transport companies and pays them for the service provided.

Figure 2: Transilien, the regional trains powered by SNCF and financed by IDFM

Since 2021, the whole public transport network is now accessible with **a single transit pass** - a change that has already occurred a while ago in the Netherlands with the *OV-Chipkaart* (launched 2005). In the Paris Region, the Navigo "smart" card carries all your information on it, from travel history to specific subscriptions, and enables you to travel by bus, train, subway, tram, *Vélib'* (shared (e-)bikes), and even the funicular of Montmartre, thanks to one single tap.

In the interest of creating an integrated public transport network, the fare-integration strategy
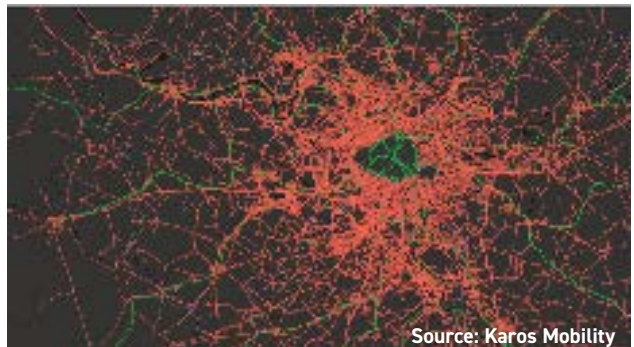

Figure 3: In Paris metropolitan area, you can switch from a tram to a shared bike with one single pass

Figure 4: Cable 1

of IDFM extends to less common mobility modes such as the upcoming "Câble 1" in the southeast of Paris — a cable car connection of 4.5 km built as an extension of an existing metro line but much cheaper and quicker to implement than a rail project.

Figure 5: An increased reach of mass transit (green) due to carpool trips supported by Karos Mobility

Mobility solutions that were for a long time considered as marginal, such as demand-responsive transport or carpooling, are now also being integrated into the mainstream public transport network. You can read more about those examples in our other blogposts (in Dutch): "The French patchwork of flex systems" and "Carpooling as an extension of public transport".

However, while the fare-integration seems to be firmly established for mass transit modes in the Paris Region, other micromobility modes such as the e-scooters or the dockless bikes need their own registration and payment process, losing the interest of chained trips. The recent vote for the ban of the shared e-scooters organised by the city of Paris might settle the issue by the end of the summer, however.

When new fare collection models support new ways of travelling

IDFM is following the international trend of developing **contactless solutions and multi-functional mobility applications for public transportation** that can already be observed in other metropolitan areas such as Brussels, Hong Kong, or London. From 2021 to the end of 2023, the famous "carnets" of 10 paper tickets are indeed being phased out and progressively replaced by transit passes as mentioned earlier. This massive transformation of the entire Île-de-France fare collection system is justified by [plethora of arguments](#) from economical to practical: cheaper for the users, no demagnetisation anymore, paper savings, less sanitary risks, etc.
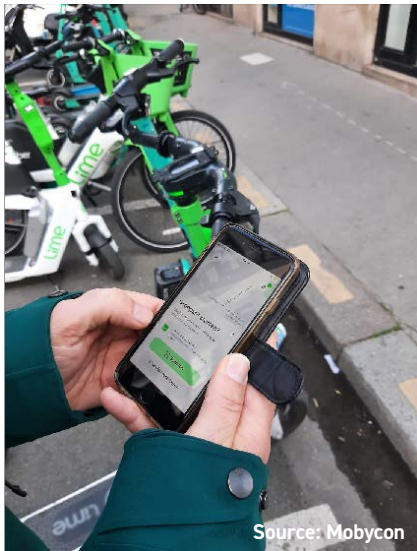

Figure 6: Separate booking modalities for the micromobility solutions in Paris (here for example, with Lime's free-floating bikes and e-scooters)

Besides the introduction of new tickets supports, the Mobility as a Service (MaaS) app developed internally by IDFM is at the heart of the new strategy. This digital environment allows you to purchase e-tickets or to top-up your transit pass directly on your smartphone, reducing the endless queues in front of ticket machines at the busiest train stations and facilitating passenger throughput.

On top of that, the travel planning feature of this app is powered by algorithms that promote greener and more space-efficient mobility options first, nudging users to change their mobility habits while helping IDFM achieve its sustainable policy objectives.

A step further: the perspective of open loop payment in public transport

As a prominent player in the payment sector, Google offers various services like Google Pay (which autofills credit card details) as well as Google Wallet (a digital offline wallet). A visit to Google's headquarters in Paris gave us a comprehensive view of their perception of public transport fare collection systems as an intriguing market to explore for large-scale implementation of new payment solutions.
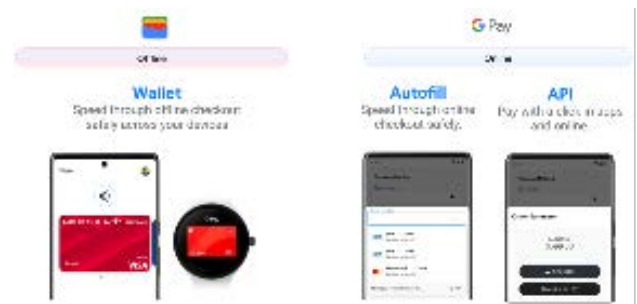
Source: Google

Figure 7: Google Wallet and Google Pay, two payment facilitating services provided by Google

Most transit services require you to have a ticket before you board: simply put, that's what we call a "closed-loop" paradigm. Beyond traditional fare collection solutions, Google is betting on "[open-loop](#)" systems, which allow you to access transit services by directly tapping with your usual payment method (credit/debit card, possibly via your phone).

While open-loop systems already exist (like [OV-pay](#) in the Netherlands launched March 2023), they remain in a basic stage. Currently in negotiation with IDFM, Google already foresees what could be the next steps within this open-loop paradigm. In the future, it could be possible to further integrate the user's mobility experience (including the fare collection process) with data managed by MaaS platforms. Additional or optimized service elements could thus be issued such as current travel information, [fare capping](#), communication messages, surveys, discounts,

information about final destinations, or personal interests that can be linked to events or locations along the route.

Nonetheless, this trend towards e-payment systems also raises concerns about mobility poverty and potentially exacerbates the "digital divide" by making public transport less accessible for people without access to digital payment methods — or for those struggling to afford public transit at all. As cities push forward with new fare collection systems, it is important that they keep equity in mind to ensure that the benefits of strong public transit are accessible to all users (perhaps by exploring policies such as fare-free transit).

Source: Mobycon

Figure 8: Paris, a walking city (Rue de Caumartin, Paris IXe)

To conclude, well-integrated fare collection systems can allow people to move easily and meet a wide variety of mobility needs, but one shouldn't turn a blind eye to the barriers that prevent some people from accessing mobility in the first place.

As we strive towards achieving an alternative mobility system that relies less on (individual) cars and more on active, public and/or shared facilities, fare collection is not the only aspect to consider. From wayfinding systems to the comfort of the vehicles (compare scootering on Parisian cobble stones to enjoying the panoramic view from the top of a double-decker express coach for example), the experience of transferring from one mode to another, and accessibility to people with mobility-constraints are other essential angles to be covered. Lastly, instead of always looking for "innovative" alternatives, we shouldn't undervalue the power of walking (which represents more than half of the modal share in Paris): the ultimate fare-free and resource-efficient form of transportation!

Want to know more about this topic? Then feel free to get in touch.

The interventions from IDFM, Karos Mobility and Google were part of a 3-day study tour organised by Forseti and Mobycon. If you would like to know more about the possibilities for a tailor-made study tour for your team or organisation, please contact us*!*