

Why Commute carpooling has become such a hot segment in the San Francisco Mobility playfield

Despite being a vast market in volume, few convincing players have emerged in the Commute Carpool segment: monetization remains an issue and structural roadblocks are limiting adoption rates.

However, many digital startups are trying to unlock the market potential, in particular in the San Francisco area, the 'laboratory' for all new mobility models. In addition, commute-carpooling has recently become the new focus of major players such as Uber, Lyft and Google.

What are these ambitious players seeking in an – apparently – constrained market? Do they have a hidden agenda?

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Overview:

Commute carpooling is one of the main transportation means in urban areas. **Total market volume is impressive** (in the US, over 13 millions workers are carpooling to go to work every day, i.e. up to ~30 billions rides in a year); but beyond informal and unorganized commute carpooling practices, the 'commercial' part is a **small and low-profit segment with many roadblocks**. Players face structural challenges to balance offer with demand, with a lack of drivers willing to carpool for the regulated remuneration level (based on an average usage cost per mile).

However, several digital start-ups have recently entered the market, especially in the San Francisco Bay Area (the 'laboratory' for all new mobility models), **with the ambition to unlock the full market potential**. In addition, **major players such as Google, Uber and Lyft** have recently demonstrated a strong interest in the market.

To date, success is still uncertain as **no commute carpooling player has emerged as the reference model** able to structure the market.

But beyond direct revenue and profit generation from carpooling, these players are pursuing other objectives:

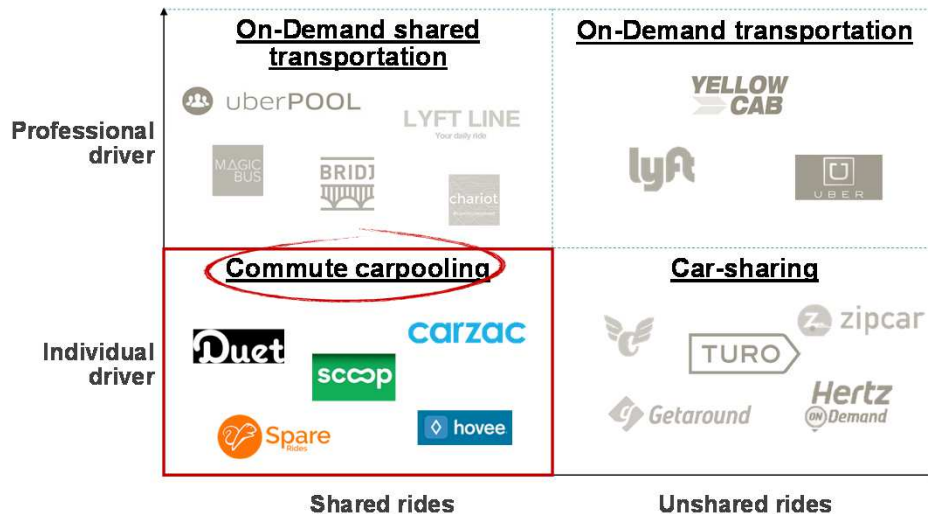
- Global mobility players such as Uber and Lyft are **looking at Commute Carpooling as a significant mobility segment to conquer** to ensure their '**last mile**' leadership (i.e. one of mobility key stakes: bringing customers up to their doorsteps, offering seamless door-to-door journeys beyond transportation hubs)
- Others, such as Google, are aiming at **gathering customer data** (i.e. for Google: enhancement of its Waze contextual advertising accuracy)
- Finally, all are preparing the **emergence of the autonomous vehicle**, which will totally disrupt the urban mobility segments

In the short term, some small players may be able to **leverage distinctive local knowledge** to emerge in specific locations. Along with micro-transit/vanpool players, they may represent attractive opportunities for large mobility operators or car OEMs to consolidate their positions on the last mile.

1. A significant market volume, but limited valorization yet

Commuter carpooling is the segment of individual drivers taking riders on their travel to work and back.

Exhibit 1: Urban automotive mobility matrix (with players sample from San Francisco):



Source: interviews, Emerton analysis

In place for decades in Europe and the US, commute carpooling is **one of the most important transportation means** (in the US, over 13 millions workers are carpooling to go to work every day, i.e. up to ~30 billions rides in a year). What’s more, a vast majority of the volume is unorganized and not monetized (family / neighbor carpool). Only a small share (a few %, depending of the local market conditions) is going through a platform-based market.

Structural challenges explain these market characteristics:

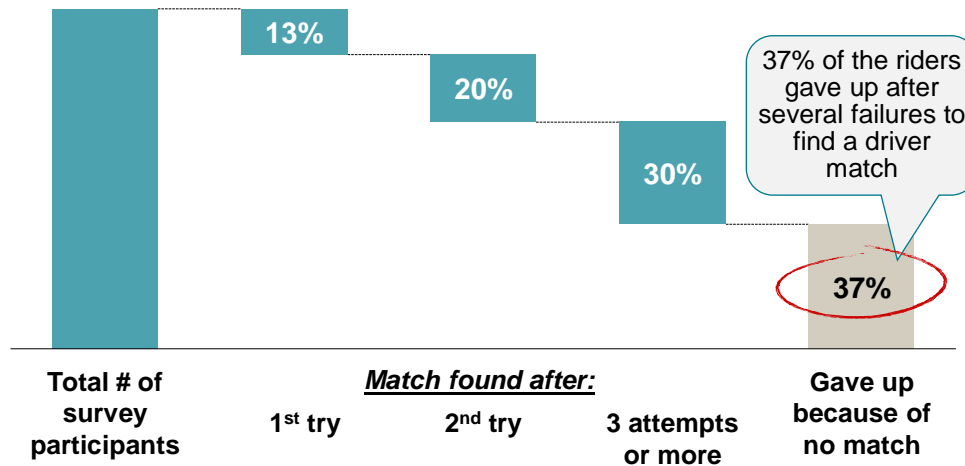
➤ **Low attractiveness for potential drivers**

Carpooling regulation caps drivers’ earning based on the average car usage cost (e.g. in 2016 \$0.54/mile in the US, €0.20/km in France), thus structurally preventing a driver from generating profits from his carpooling activity. Whereas riders are attracted by this low pricing, most drivers (non-professional drivers going to work) are reluctant to allow strangers in their car just for a couple of dollars (as commute carpooling is by nature limited to relatively short distances).

Max. revenue for a US carpool driver: \$0.54/mile

This drivers’ shortage leads to the **carpool vicious circle**: as many riders cannot find a proper match for their trip, they give up carpooling for other more reliable transportation means.

Exhibit 2: Required attempts using one of the leading carpool apps to get a match with a driver (based on a survey performed in San Francisco in Nov. 2016)



Source: Emerton survey

➤ **Low trust in the service**

Carpooling development is in addition constrained by several issues which strongly downgrade the trust in this transportation mean: the anxiety of getting to work on time, the stress of sharing a vehicle with strangers, the exchange of cash, the doubts on safety inside a stranger’s car and the fear not to be able to find the driver/rider at pick-up point.

As a consequence, commute carpooling remains a low revenue activity for carpooling peer-to-peer facilitation platforms: with an average 10 to 20% commission on drivers’ revenues, the annual commercial market size for US commute carpooling is **only a few \$10’s of millions, fragmented in dozens of local markets.**

Average revenue for a US carpool player: \$0.08/mile

2. Digital giants & startups market entrance

Despite this apparent limited market attractiveness, **numerous digital startups** have lately arisen to give commute carpooling a fresh chance (in particular in the San Francisco Bay area: Scoop, Duet Commute, hovee, carzac), trying to solve structural constraints by:

- Facilitating financial transactions through cashless payments
- Optimizing driver/rider matching through sophisticated algorithms
- Decreasing pick-up anxiety through enhanced geolocation features, and by performing drivers’ background checks

The San Francisco Bay Area has been chosen by such players to launch their commute carpooling offer for two main reasons. First, the San Francisco Bay Area is traditionally the ‘laboratory’ for all new mobility models. Second, this area faces structural traffic challenges with limited mass transit transportation alternatives.

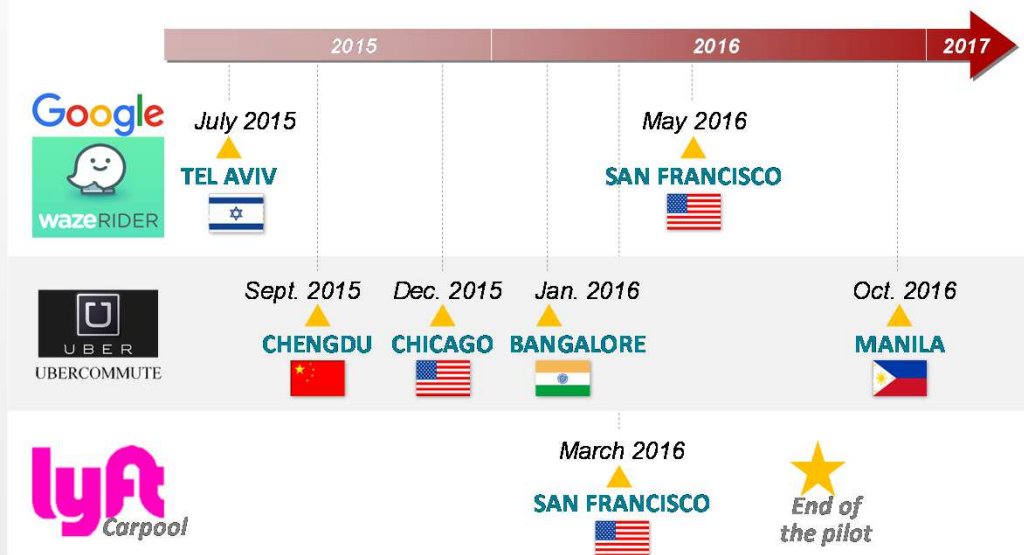
But despite these positive local dynamics, the economical and trust issues remain and **no player has yet succeeded to unlock the full market potential**, represented by the commuting single-drivers.

To reinforce the paradox, the last 18 months have been the demonstration of Google, Uber and Lyft’s interest in commute-carpooling – fueled by the belief they can bring the sufficient local critical mass:

“Commute carpooling is a market where the success formula yet has to be found”

Duet Commute, CEO

Exhibit 3: Market entries in commute carpooling for Google, Uber and Lyft



Source: Emerton analysis

- **Google**, through a double application: for drivers, the usual “Waze” navigation app where drivers willing to carpool have to activate a carpooling mode; and for riders, a new app called “Waze Rider” where they search for a match with a driver
- **Uber** with an UberCOMMUTE service fully integrated into the regular “Uber” application
- **Lyft** with the launch in March 2016 of a pilot in San Francisco, ended 5 months later, mostly due to a lack of drivers

Following their early deployments, Google/Waze and Uber are expected to roll-out in new geographies in 2017.

3. Conquest of the 'last mile' leadership

For Uber and Lyft, the move to commute carpool is no real surprise: in line with their portfolio strategy, they are expanding (or tried to for Lyft) to an untapped mobility segment (the last large volume segment) where their driver/rider matching know-how and vast client base can potentially make the difference. Thus they are consolidating their **leadership in the 'last mile'** (i.e. one of mobility key stakes: bringing relevant transport solutions beyond transportation hubs to final destinations).

Through UberCOMMUTE, Uber addresses in a selection of cities across the world (China, India, Philippines and the US) an entry level segment, alongside UberX, UberPOOL or UberGREEN.

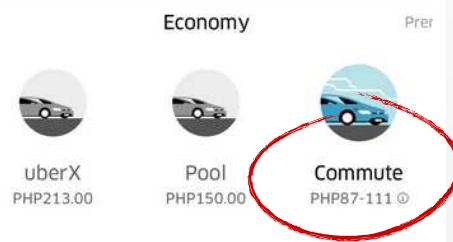
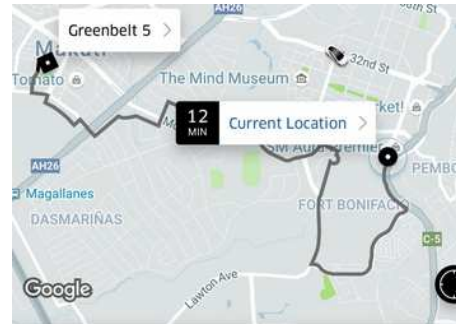
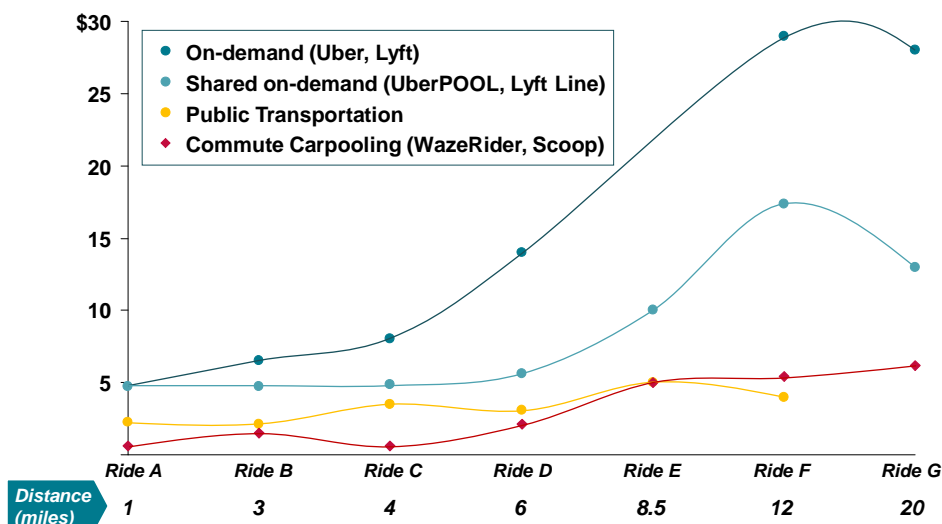


Exhibit 4: example of options portfolio in Uber application

Uber is closely monitoring the **potential cannibalization effect** of this new offer. Despite the 25% commission on drivers' payments, revenue per mile generated by UberCOMMUTE is much lower for Uber than in other segments because of carpool regulations, which strictly limits its use for home/work commuting.

Exhibit 5: Price level for urban commuting by transportation alternative (for a sample of rides in San Francisco during commute hours, in November 2016)



Source: interviews, Emerton analysis

On top of a new revenue stream, Uber aims as well at **market induction**, as new customers who install the Uber application for the UberCOMMUTE service may become users of Uber's other services as well.

Lyft's withdrawal after a 5-month test in carpool in 2016 illustrates the difficulty of the carpool equation. However Lyft has not dropped all hopes in this segment, and has decided to take the back seat with someone else, while in the meantime refocusing its main efforts on its core activities.

4. Commute carpooling: the long-term agenda

➤ Customer data

Data provided through carpool applications (such as customer **home/work precise location** and **riders/drivers peer reviews**) are key information able to generate value at different levels:

- Google aims at this data to improve the accuracy of Waze's **contextual advertising**, which is the base of its business model
- Carpooling data is leveraged by digital players such as Scoop in their **partnerships with authorities** (e.g. getting subsidies in exchange of the communication of performed rides data; the authorities benefit there of a better understanding of riders habits to improve their traffic congestion issues)
- Carpooling data can also be leveraged by third parties with **trust-based activities, such as insurers**

On top of these various means of value generation based on carpoolers' information, this customer data is also instrumental in the ultimate objective: **autonomous mobility**.

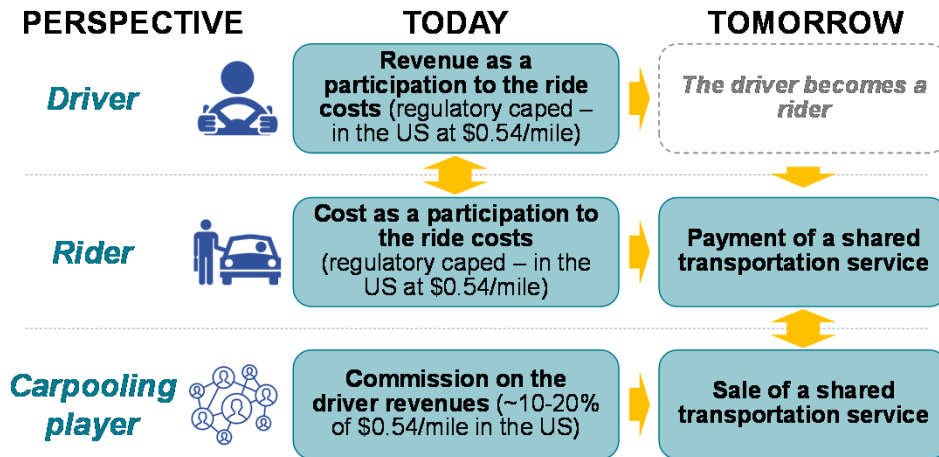
➤ The autonomous vehicle

While the current regulatory \$0.54/mile rate cap is limiting market attractiveness, this structural barrier will disappear with the emergence of the autonomous vehicle.

Without a driver, the regulated drivers' remuneration is not a constraint anymore, and carpooling merges with the other ridesharing segments: micro-transit (with players such as Chariot, Bridj, or Magic Bus) and on-demand shared transportation (UberPOOL, Lyft Line).

In this perspective, the carpooling players' revenues will evolve **from a small commission on drivers' revenues to the sale of a shared transportation service**, making carpooling's financial viability more realistic for mobility players.

Exhibit 6: Potential disruption of the traditional commute carpooling landscape with the autonomous vehicle



Source: interviews, Emerton analysis

Alternative models could subsist during the ramp-up period towards autonomous mobility, depending on vehicle ownership and on vehicle size, but **commute carpooling (i.e. short urban distances) will be the first mobility segment disrupted by autonomous vehicles.**

Going further:

Although a profitable business model is still to be found, **competition is already fierce** between mobility players on the commute carpooling playfield, and is expanding to new geographies.

Digital giants

Digital giants have clearly decided to **position their brand to capture the existing customer base** well ahead of the disruption; they will play a **more and more structuring role in commute carpooling** in coming years.

Commute carpooling startups

Some smaller players may be able in the short term to leverage a **distinctive local knowledge** and an **ability to adapt** to local conditions to emerge in specific locations.

For example, **Scoop** has become in a few months after its launch the commute carpooling digital leader in the San Francisco Bay Area thanks to the right partnership set-up with both local companies and local authorities (e.g. some Counties are sponsoring the use of Scoop app).

Micro-transit startups

Beyond commute carpooling, **micro-transit startups** are building an attractive alternative value proposition: a flexible, on-demand transportation mean in minibuses/shuttles/vans, where the bus line is defined by an algorithm based on the passengers' destination.

Mobility operators, automotive OEMs

The race is also open for large players such as mobility operators and automotive OEMs seeking to enforce **their 'last mile' leadership through acquisitions or partnerships**, both in commute carpooling and micro-transit segments.

The challenges will be to select the relevant targets in these very fluid segments and to successfully integrate them in their growing mobility value proposition.

About Emerton:

- Emerton is a premier global, mid-size strategy consulting firm, with offices in Europe (Paris & Brussels) and North America (Boston & New-York)
- Its Transportation & Mobility practice consists of a blend of experienced strategy consultants and seasoned industry professionals with in-depth experience of Public & Rail Transportation, Automotive, low-carbon Mobility and digital Mobility sectors
- Emerton offers a unique value proposition through decision-driven analytics and unparalleled personal expertise in the Mobility sector



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