Car manufacturers...
How to become a mobility services operator?

US – France – Germany – India - China
Approach and scope

Focus on *Individual urban mobility*
And its impact on *Car Manufacturers*

**BUSINESS TREND ANALYSIS**

1. Car makers initiatives
2. Competitive players map

**STRATEGY FOR THE FUTURE**

3. Key Success Factors
4. Strategy & Business model
60%, would trade their cars for a robo-taxi/innovative mobility service
27%, even if the total cost were equal or higher than owning a car

Source: From 3,000 responders under 30 y.o. in cities from Germany, China, USA. McKinsey, “Profiling tomorrow’s trendsetting car buyers”, December 2018
Multiple actors with fragmented offers entered the mobility services business ranging from traditional taxi services to innovative services to answer the urban mobility complexity.
Answering the “Mobility as a lifestyle”

In response to needs and dreams, multiple actors developed specifics offers, ranging from traditional taxi services to innovative last mile services to answer the urban mobility complexity.

Based on our researches we drew this world map of mobility services.

Each dot represent a city.

Size of the dots represent the number of mobility services in each city.

Source: research done by ESCP team, 2018
## Development of Mobility Service Business is Fueled by:

- Constant trend of urban development leading to health and urban mobility efficiency concerns
- Technological break through: smartphone, artificial intelligence, big data, wireless networks, batteries...
- Large Funding by VC, Tech companies

### Mobility Services Players

<table>
<thead>
<tr>
<th>Leader</th>
<th>Profitability</th>
<th>Main Challenges</th>
<th>Opportunities</th>
</tr>
</thead>
</table>
| Ride hailing | Low or negative due to invest. | • Local city regulations/bans  
• Driver labor claim | Autonomous vehicles |
| Vehicle sharing  
• Closed loop  
• Open loop | Negative due to business model scalability | • Fleet investment and scalability  
• Fleet ownership risks: vandalism  
• Partial service failure: Autolib, Ofo  
• Signs of services saturation | Reduction of personal vehicles in cities |
| Ride sharing, on demand | Negative due to actual small scale | • Scalability & service level  
• Third party efficiency | Answer to urban traffic by increasing passenger number per vehicle |

Despite tremendous expansion and search of global leadership, most of innovative mobility services are not profitable yet, but some of them will be in the future. At the image of smartphone begins, it took few years to see value in the data flow and leverage it.
An important development to be tempered: the ultimate technology ‘Self driving vehicle’ is not ready yet.

- According to experts’ previsions autonomous vehicles will more likely enter the mainstream market after 2030 and will have to coexist on road with non-autonomous vehicles.

- Due to urban migrations and wealth increase, Asia is most likely the area where mobility services will increase the most.

Source: “Accenture Mobility as a service: Mapping a route towards future success in the new automotive ecosystem”, 2018
MOBILITY SERVICES OVERVIEW

➔ From “Car for freedom” to “Mobility as a lifestyle”
➔ Answering the “Mobility as a lifestyle”
➔ Are actual players making money?

CAR MAKERS CHALLENGES AND INITIATIVES

➔ Car makers facts & futures challenges
➔ Car makers in the mobility services business

STRATEGIES FOR THE FUTURE

➔ Business Model
➔ Key Success factors
➔ Strategies for the future

➔ Appendix
Challenges for car makers

- From 2007 to 2011, the number of cars purchased by people aged 18 to 34 fell almost 30%, and the percentage of Millennials without cars continues to grow.
- With the advent of new ride sharing businesses and practices, consumers are beginning to see cars as a service, rather than a prized possession.

- As the governments and citizens around the world become more environmentally conscious, new and challenging regulations on safety and emissions are expected to continue to tighten in the future.

- In its strive to produce a more efficient, cost effective and environmentally friendly car which respects the global norms and standards, a car manufacturer needs to be on the forefront of adopting new technology. Heavy investments made by car manufacturers in Hydrogen fuel cell based electric car technology and research is the testament of this new

- Automobile companies are increasingly expected to be part of an ecosystem that merges mobility, communication and information which leads to a higher customer value. Future customers are expected to produce greater demand for connected technologies and smarter service experiences to go with their smart cars.

Detailed PEST(EL) analysis can be found in the appendix (Link)
Cars sold worldwide is increasing over the years, with about 82 millions units in 2018.

Fast increase from 1990 till 2015 (around 20%)

A slower increase is seen from 2016 till 2018 (around 2%), and will follow this trend until 2030.

Car-manufacturers interviews confirm these trends and optimistic projections for sales due to important rural demand and electrical vehicle interest.

Asia will continue to drive car sales volume increase in the next decade.

Source: ScotiaBank, © Statista 2018
Mastering mobility services can be a leverage for car manufacturer considering that an estimation of 35% of sales will be for new mobility services* in 2025 in China.

U.S with the biggest market of mobility services after Europe and China.

* “New mobility services” include car sharing, ride hailing, and Robocabs, but not conventional taxis or rental car services.

Source: Roland Berger, Lazard, 2015

Source: PwC, Strategy&, Business Insider, 2017
The automotive revenue pool will grow and diversify becoming a ~USD 1.5 trillion market in 2030.

Estimated global automotive revenue based on consumer spending in 2016, by segment (in USD billions). Does not include traditional taxi and rentals.

Entering the mobility services is crucial

- 24% expected annual growth in revenues from 2018 to 2019
- Revenues in the ride hailing market will continue to increase thus car manufacturers should consider the mobility services as an important part of their revenues streams in the future

**Global Comparison - Revenue in the Ride Hailing market**

<table>
<thead>
<tr>
<th>Country</th>
<th>Revenue (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>28,176m</td>
</tr>
<tr>
<td>United States</td>
<td>15,612m</td>
</tr>
<tr>
<td>Indonesia</td>
<td>3,706m</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2,421m</td>
</tr>
<tr>
<td>Germany</td>
<td>1,002m</td>
</tr>
</tbody>
</table>

**Revenue in the Ride Hailing market**

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>47,021</td>
</tr>
<tr>
<td>2018</td>
<td>62,168</td>
</tr>
<tr>
<td>2019</td>
<td>77,065</td>
</tr>
<tr>
<td>2020</td>
<td>91,392</td>
</tr>
<tr>
<td>2021</td>
<td>104,342</td>
</tr>
<tr>
<td>2022</td>
<td>115,552</td>
</tr>
<tr>
<td>2023</td>
<td>124,987</td>
</tr>
</tbody>
</table>

Source: Statista – November 2018
**25.4 Billions were invested in the mobility services activities**

- **38%** of these investments was spent on the **sharing solutions** and **25%** on **autonomous solutions**
- **79%** of automobile-related startups investments are on mobility services
- Thus to become a player in the mobility services, car makers should invest the most on sharing solutions (car or ride sharing)

### Annual average worldwide mobility service-related investments between 2014 and 2017 (in billion U.S. dollars)\(^a\)

<table>
<thead>
<tr>
<th>Category</th>
<th>Investments in billion U.S. dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing solutions</td>
<td>9.6</td>
</tr>
<tr>
<td>Autonomous solutions</td>
<td>6.4</td>
</tr>
<tr>
<td>User-interface technologies</td>
<td>3.5</td>
</tr>
<tr>
<td>Back end and cybersecurity</td>
<td>1.9</td>
</tr>
<tr>
<td>Electrification/ energy storage</td>
<td>1.7</td>
</tr>
<tr>
<td>Sensors/ semiconductors</td>
<td>1.5</td>
</tr>
<tr>
<td>Telematics</td>
<td>0.4</td>
</tr>
<tr>
<td>Vehicle leasing &amp; fleet management</td>
<td>0.2</td>
</tr>
<tr>
<td>Gesture/ voice recognition</td>
<td>0.1</td>
</tr>
<tr>
<td>Parking and mobility optimization</td>
<td>0.1</td>
</tr>
</tbody>
</table>

### Worldwide automobile-related startup investments received in 2016, by segment (in billion U.S. dollars)

- **Mobility services**
- **Green vehicles**
- **Sales and aftersales**
- **Connected and autonomous**

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*Source: McKinsey, 2014 through September 2017*

*Source: Oliver Wyman, 2016*
Asia is currently (37.5%) and is expected to be leading (~ 50%) the carsharing market in 2021 followed by Europe and North America.

In order to increase worldwide car sales, carmakers are particularly keen on tapping into the growing affluence of Asian markets, where passenger vehicle sales have doubled over the past seven years. Between 2008 and 2016, car sales were on the rise in Indonesia and India;

Car manufacturers should consider the Asian market to develop their mobility services operations.

Source: Roland Berger, 2015
United States

- Congestion on the streets
- Very little available parking space
- Willingness to own cars
- Most advanced in terms of new mobility
## Situation in the US 1/2

<table>
<thead>
<tr>
<th>Collaboration</th>
<th>UBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment</td>
<td>lyft 500 M$</td>
</tr>
<tr>
<td>Acquisition</td>
<td>CRUISE 581 M$</td>
</tr>
<tr>
<td>Internal Initiative</td>
<td>BMW ConnectedDrive</td>
</tr>
<tr>
<td>Strategy description</td>
<td>Car sharing + IOT strategy - Focus on car sharing and user experience</td>
</tr>
</tbody>
</table>
### Situation in the US 2/2

<table>
<thead>
<tr>
<th>Collaboration</th>
<th>Investment</th>
<th>Acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waymo</td>
<td>Waymo</td>
<td>Uber</td>
</tr>
<tr>
<td>JAGUAR</td>
<td>TOYOTA</td>
<td>500 M$</td>
</tr>
<tr>
<td>HONDA</td>
<td>Autoliv</td>
<td>CRUISE 2.75 B$</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Internal Initiative</th>
<th>Strategy description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAGUAR I-PACE</td>
<td>Electric Car supplier space - Dependent on ‘Owners’ global strategy</td>
</tr>
<tr>
<td>TOYOTA I-ROAD</td>
<td>Conceptual futuristic design and drive - Autonomous - New designs</td>
</tr>
<tr>
<td>UBER</td>
<td>Focus on backend tech and becoming a ‘specialized supplier’ strategy</td>
</tr>
<tr>
<td></td>
<td>Big singular partnership strategy</td>
</tr>
</tbody>
</table>

**MBA in International Management**
**SWOT - Uber**

**Strengths**
- Brand name
- Present everywhere and potential/resources to expand anywhere
- On demand service
- No fixed asset requirement
- Acceptability
- Customer engagement
- Low delay

**Weakness**
- High commissions
- Low midwest presence
- Absence of customer service executives
- Legal tangles
- Continued burn

**Opportunities**
- New markets
- Newer segments through diversified services
- Market capitalization
- Acquisition

**Threats**
- Regional players
- Controversy (bad press)
- Political situation
- Car operators tie up with different players

**Uber’s strategy:**
- Land and conquer
- Burn cash until you capture it
- Brand image
- Conquer with data
- Driver background checks

> “Transportation as reliable as running water, everywhere for everyone.”

- Vision of Uber, Company Website
Europe (France & Germany)

- Vehicle restrictions in city centers
- Saturation of roads and public transportation systems
- Development of last mile
**Situation in Europe (France & Germany)**

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<td>Global mobility strategy testing &amp; customer centric</td>
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<td> </td>
<td>- Acquisition of small players and technology leading very diversified investment policy</td>
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<tr>
<td> </td>
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<td> </td>
<td>1 Umbrella brand &amp; platform for mobility services (Free2Move) providing third party services to customers.</td>
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<td> </td>
<td> </td>
<td>- Car sharing in France, Spain and project in China.</td>
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<td>Specialized strategy</td>
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<td>Strong car sharing activity +5000 cars</td>
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<td>Fleet management strategy ?</td>
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<td>Specialized ?</td>
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<td> </td>
<td>Strong activity with Car2go</td>
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<th>Diversification</th>
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<tbody>
<tr>
<td>- Watching mobility services test investments, aiming at being a key OEM</td>
</tr>
<tr>
<td>- Try innovative services with Moia</td>
</tr>
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<table>
<thead>
<tr>
<th>Situation in Europe (France &amp; Germany)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car Makers challenges</td>
</tr>
<tr>
<td>MBA in International Management</td>
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</tbody>
</table>
## SWOT - DAIMLER

### Strengths 🌟
- Global leader in premium cars
- Diversified (trucks, coaches, cars)
- Smart, adapted for urban mob
- Experience and heavy investments in mobility services
- Strong brand and robust image
- Strong R&D + F1

### Weaknesses 🍀
- High maintenance costs of vehicles
- Lower popularity among young people

### Opportunities 📈
- Electric incentives on European market
- Technology progress on autonomous drive/sensors
- Promotion of premium cars with car mobility services

### Threats 🧟‍♀️
- Ban of cars in city centres (London, Paris next?)
- Dieselgate and disapproval of diesel engines; could undermine their investing capabilities
- Congestion in cities

### Daimler’s strategy:
- Strengthening our global core business (CORE)
- Leading in new future fields (CASE)
- Adapting our corporate culture (CULTURE), and
- Strengthening our divisional structure (COMPANY).
- The benchmark for each of these strategic components is our fifth and most important C: CUSTOMERS.

“By these five components we want to achieve profitable growth, increase the value of our company and significantly shape the future of mobility.”

- Vision of Daimler, Company Website
### SWOT - Renault Alliance’s strategy:

- Provide cars and services in a customer centric way
- Valuing at every moment customer satisfaction

### Strengths

- Ability to scale organisation (alliance ventures innovation and partnership teams for example are autonomous 1 million investment decisions)
- Leaders with EV
- Best sellers worldwide (thanks to alliance)

### Weaknesses

- Weak presence in the US

### Opportunities

- Electric incentives on European market
- Technology progress on autonomous drive/sensors
- Promotion of premium cars with car mobility services

### Threats

- Ban of cars in city centers (London, Paris next?)
- Congestion in cities
- Risk of schism following Carlos Ghosn issues with Japanese justice

“Connected mobility for everyone. At the core of the work of the Alliance technology teams is a vision of a future with zero emissions and zero fatalities.”

- Vision of Renault, Company Website
Marcel’s strategy:

- Be the first service 100% electric and anticipate the future diesel ban in most of major European cities

“Marcel believes in a quality transport activity, more fair and sustainable!”

- Vision of Marcel, Company Website
**SWOT**

**Strengths**
- Early installed service, important establishment
- Access to vehicle via Daimler
- Alliances with municipalities
- High capital with Daimler support
- Attractiveness of prices
- Strong brand image

**Weaknesses**
- Less incentive to innovate than competitors (as subsidiary of Daimler)
- Poor marketing due to wide customer target
- China: cars need to be imported, so have higher cost.

**Opportunities**
- Willingness of cities to propose mobility services
- Public awareness and acceptance
- China: Electric incentives/increasing demand

**Threats**
- High level of competition with low differentiation
- China: Limited parking places in cities./ Do not have much price advantage compare to local taxi and local players

"Flexible carsharing reduces traffic in towns and cities, frees up valuable parking space and improves air quality. Car2go therefore contributes to an increase in the quality of life, while at the same time precisely meeting the mobility requirements of those who live in the towns and cities."

Olivier Reppert, CEO car2go Group GmbH
India

- Air quality concerns
- Government support for EV
- High congestion in public transports
- Growing urban population and income
## Situation in India

<table>
<thead>
<tr>
<th>Collaboration</th>
<th>Investment</th>
<th>Acquisition</th>
<th>Strategy description</th>
</tr>
</thead>
</table>
| **Helping local authorities to modernize mobility infra. Investments in mobility services providers.** | **Partnering with local authorities & private players to supply EVs.** | **Partnering with local authorities.** |**Collaboration & Investment**
Ford & Hyderabad Metropolitan Development Authority to explore Integrated Mobility Solutions for Smarter City Commute. Ford to invest $50 million on center for integrated mobility in Maharashtra.

**Ford (USD 24m) and Mahindra (USD 40m) together have invested USD 64m in Zoomcar along with other investors.**

**Ford Motor has begun an experimental ‘smart shuttle service’ for its employees at the production unit in Chennai - could see wider implementation.**

**Tata Motors and Mahindra will jointly deliver 10k EVs to State-owned Energy Efficiency Services Ltd. (EESL) for the Delhi-NCR region. Tata also delivered 25 Electric buses to Mumbai government.**

**India needs $ 4.5 trillion by 2040 to develop Infra, of which it will be able to garner about USD 3.9 trillion: Eco Survey. Govt trying to seek help from private sector to bridge the gap.**
<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Strong <strong>venture capital support</strong></td>
<td>● <strong>No Control</strong> over Drivers</td>
</tr>
<tr>
<td>● Over <strong>110 cities</strong>, <strong>1M drivers</strong> (0.9M vehicles)</td>
<td>● <strong>Weak customer support</strong></td>
</tr>
<tr>
<td>● <strong>Large fleet</strong> of cars, SUVs, ‘Autos’ &amp; motorbikes</td>
<td>● <strong>Dependence</strong> on Internet</td>
</tr>
<tr>
<td>● Driven by a <strong>hyperlocal</strong> approach</td>
<td>● <strong>Less penetration</strong> in ‘non tech-savvy’ population</td>
</tr>
<tr>
<td>● 45% market share</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>● <strong>Increasing demand</strong> for mobility services</td>
<td>● <strong>Increasing competition</strong></td>
</tr>
<tr>
<td>● Many <strong>potential cities</strong> are yet to be covered</td>
<td>● <strong>Switch option</strong> for customers.</td>
</tr>
<tr>
<td>● <strong>Saturated</strong> public transport</td>
<td>● Conflict with <strong>traditional business</strong>, eg. taxi</td>
</tr>
<tr>
<td>● Expansion of Ola Pedal</td>
<td>● Ambiguous government regulation</td>
</tr>
<tr>
<td>● GDP growth rate of 7.1%</td>
<td></td>
</tr>
</tbody>
</table>

Ola’s strategy:

- Convenient, transparent, and quick service fulfilment
- Leveraging the best of technology
- Building innovative solutions ground-up that are relevant at global scale.
- Offering a highly personalised experience

“**Driven by a hyperlocal approach, Ola is committed to its mission of building mobility for a billion people.**”

- Vision of OLA, Company Website
### SWOT - TATA MOTORS

#### Strengths
- Separate e-mobility division
- Already delivered an e-car and an e-bus
- Sub-brand: TAMO - an incubation centre of innovation
- Heavy investment in cloud based architecture and end to end mobility

#### Weaknesses
- Already behind the curve compared to the global players
- Very large workforce owing to traditional operations
- Segregation between products and services

#### Opportunities
- Indian government’s vision for electric vehicles by **2030**
- Partnership with the government for public transport
- **Incubation platform** could provide future partnerships

#### Threats
- Entry of global players
- Different governments have different policies on e-vehicles and mobility services
- High speed internet is still limited to cities

#### Tata’s strategy:
- Always focus on investing in upgrading key systems
- Advance technology vehicles
- Reducing carbon footprint of operations
- Building a socially responsible value chain
- Strengthening waste management

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“We innovate mobility solution with passion to enhance quality of life.”

- Vision of TATA(mobility), Company Website
China

- Heavy urban air pollution
- High level of congestion
- License-plate lottery for buying new car
### Situation in China

<table>
<thead>
<tr>
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<th>Investment</th>
<th>Acquisition</th>
<th>Internal Initiative</th>
<th>Strategy description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T3 Travel</td>
<td></td>
<td></td>
<td></td>
<td>Intermediate mobility strategy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- First player who provide EV</td>
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<tr>
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<td></td>
<td>- Just launched ride hailing service (Xiangdao) in December 2018.</td>
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<td></td>
<td>Testing stage</td>
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<td></td>
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<td></td>
<td></td>
<td>- Cooperated with other two “big four” OEMs (T3)</td>
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<td>- L3 autonomous driving platform by 2020, and L4 by 2025.</td>
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<td></td>
<td></td>
<td>Testing stage</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Cooperated with many players</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>- Willingness to partner on the capital level to jointly develop a travel ecosystem.</td>
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<tr>
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<td></td>
<td>Testing stage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Cooperated with different players in car sharing.</td>
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<tr>
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<td></td>
<td>- Together with VW, built five manufactory center in 2018.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Collaboration strategy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- ToGo collaborated with many car makers in order to give customer more choices.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>- ToGo has been faced with a refund plight since December 2018.</td>
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<tr>
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<td></td>
<td><strong>228M$ in 4 years</strong></td>
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<td></td>
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<td><strong>50%</strong> from PSA</td>
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<td><strong>With VW</strong></td>
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**Situation in China**

**MBA in International Management**
### SWOT - Didi

**Strengths**

- **Biggest platform** in China
- Business range from taxi to car hailing
- Cover **400** cities and have 450m users
- Immediate active after registering

**Weaknesses**

- No hardware facility
- **No technical barrier**
- Customers do not have switch cost
- Has difficulty managing drivers

**Opportunities**

- High demand of mobility services
- Large numbers of potential users
- Government support on internet business

**Threats**

- Intense competition
- **Conflict** with traditional business, eg. taxi
- Regulations are not clear

**Didi’s strategy:**

- Creating customer value
- Data-driven thinking
- Win-Win collaboration
- Integrity is the bedrock of our foundation
- Growth comes with accepting challenge

"To Become a Global Leader in the Revolution in Transportation and Automotive Technology."

-Vision of Didi, Company Website
<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>● Can leverage resources from SAIC</td>
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<tr>
<td>● First player providing EV</td>
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<tr>
<td>● Cover 64 cities and have more than 3M users</td>
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<tr>
<td>● Online registration with deposit</td>
<td>● Need to register in advance (2-3 days)</td>
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<tr>
<td></td>
<td>● Mainly focus on car sharing</td>
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<td>● High operational cost</td>
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</table>

Evcard’s strategy:
- To be the leader in the industry of time sharing rental and adhere to explore more intelligent, environmentally friendly, open and friendly experience mode for users

Opportunities:
- Government support on EV
- High demand on mobility services
- Large numbers of potential users

Threats:
- Increasing competition
- Congestion in cities
- Limited charging stations

"Sharing, Eco-friendly, Efficiency and Innovation."

-Vision of EVCARD, Company Website
MOBILITY SERVICES OVERVIEW

➔ From “Car for freedom” to “Mobility as a lifestyle”
➔ Answering the “Mobility as a lifestyle”
➔ Are actual players making money?

CAR MAKERS CHALLENGES AND INITIATIVES

➔ Car makers facts & futures challenges
➔ Car makers in the mobility services business

STRATEGIES FOR THE FUTURE

➔ Business Model
➔ Key Success factors
➔ Strategies for the future

➔ Appendix
To be successful in entering and lasting in mobility services business, car manufacturers will have to capture a significative part of the mobility business as a key growths drivers.
Business Model

Xxx New items to be included in the business model for mobility services

### Key Partners
- Investors
- OEM
- Alliances
- Joint ventures
- Collaboration

### Key Resources
- Manufacturing plants
- Licenses
- Distribution network
- IT and digital facilities

### Key activities
- **R&D / Engineering / Design / Manufacturing**
- Marketing / sales /after sales
- Distribution
- **Product development**
- UX and services design

### Customer relationships
- Customer assistance
- Brand awareness
- Customer loyalty
- **Customer experience**
- Customer support

### Customer segments
- Mass market
- Organizations
- **Mobility services providers**

### Value proposition
- Provide the customer with a vehicle
- **Provide the customer with a mobility service**
- Provide a brand that connects to the user on a daily basis

### Channels
- Dealers / Stores /Resellers
- Exhibitions and events
- **Mobility plateforms**
- Mobile applications
- Parking spots

### Costs
- R&D / Manufacturing
- Distribution
- Marketing
- **Maintenance and cleaning**
- Mobile applications development

### Revenues
- Sale of cars
- After sales services
- **Mobility services activities**
Business model to cope with mobility activity 1/2

Value proposition

• Car manufacturers will not anymore provide their customers with cars from a one time sale but rather with a brand that connects them to the users on a daily basis through the mobility services they offer.

Key Partners

• Car manufacturers will not reinvent the wheel. Partners are crucial during the phase of becoming mobility provider
  • Collaboration with mobility services operating without fleet
  • Joint ventures with car makers performing well in the mobility services
  • Investments in tech startups and companies working on electric and autonomous cars. In addition to investments in safety and radar systems that are an important pillar in the autonomous industry.

Key activities

• In terms of key activities, these will remain intact as they will still build cars for selling and mobility purposes. However the model of the car will change due to different needs and thus the manufacturing will be directly impacted. Sturdy but yet comfortable cars need to be built; The size of the car will be reduced as they are targeting cities and urban destinations.
  • For autonomous and electric car manufacturing, the R&D team would have to launch a specific project for that matter.

Key Resources

• Along with the existing resources, IT and digital facilities (servers for instance) will be needed. Mobility services will accessed through different digital channels and thus the need for resources to host this activity
Costs

• As more customers will be using the car on a daily and monthly basis, additional responsibilities arise in order to keep the image of the brand; Maintenance as well as cleaning are crucial to secure a good experience for the users during their journey. On the other hand, this variable cost will impact the cost of this service to the customers.
• Moreover, developing online platforms to make the services reachable for users is of paramount importance. This cost include developing, designing, maintaining and support the clients on these applications.

Channels

• Mobility services will be at the reach of customers via mobility platforms which includes websites and mobile applications for instance.
• In addition, car makers will have to secure spots for the vehicles to be accessible thus the tremendous need for parking spots.

Customer relationship

• As a mobility service operator, the car manufacturer will need to ensure the clients are enjoying a good experience starting from booking the service till the end of the ride.
• Customer satisfaction and customer experience are important to keep a good relationship with the client and ensure they will be frequent and loyal users of the services offered.

Revenues

• In terms of revenue streams, the mobility services activity is generating a new source of income; it covers subscriptions to bundles, tariffs of the activity and extra options booked by the consumers such as navigation systems.
Car makers among the mobility services’ stakeholders

- Tech companies and start-ups
  - Mobileye
  - STROBE
  - WAYMO
  - Intel
  - Velodyne
  - APTIV

- Navigation data providers & safety suppliers
  - Civil Maps
  - HERE

- Mobility services platforms without fleet
  - FREE2MOVE
  - CAR2GO
  - marcel
  - moov'in.paris
  - MAVEN
  - EVCARD

- Mobility services with fleet
  - chariot
  - BIRD
  - ofo

- Car manufacturers
  - UBER
  - NAVIGON
  - Renault
  - moovel
  - moov'in.paris

Strategies for the future
Car manufacturers need a clear vision of their future

3 different types of visions for car manufacturer with increasing level of difficulty:

**Car manufacturer**
Customers will still want to buy and own cars. This activity will remain but might not be the core market for car makers.

**B2B provider**
- Produce vehicles “built-for-service” targeting mobility services operators.
- Partnerships and investments done with tech companies (focusing on EV and autonomous cars).

**Car mobility service provider**
- Provide their customers with mobility services
- Include electric and autonomous cars owners of a vehicle fleet.

**Full mobility service provider**
Become a full stack mobility provider and owning the mobility service platform.

W: work force
Identifying Key Success Factors is critical for success

Our research identifies the key success factors that help shape winning strategies:

- Data
- Mastering IT
- Partnerships
- Agile Org.
- Financial support
- Innovative ecosystem
- Customer Knowledge
- Communication Brand Image
- Hardware Integration

Highly flexible and agile organizational structure
IT and the Org structure have a crossflow of data for quicker and better decision making
Highly flexible and agile organizational structure
Mutually beneficial partnerships
Successful integration of different mobility service hardware components (Bikes, Cars, Scooters etc.)
Understanding and quickly reacting to customer needs
Effective communication and projecting the most relevant brand image to targeted customer segments

Financial support
Innovative ecosystem
Effective communication and projecting the most relevant brand image to targeted customer segments

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In order to achieve their vision, car manufacturers need to draw a strategy based on the right Key Success Factors:

<table>
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<tr>
<th>Visions</th>
<th>Today</th>
<th>Future</th>
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<tr>
<td>Classic car manufacturer</td>
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<tr>
<td>B2B provider</td>
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<td>Car mobility service provider</td>
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<td>Full mobility service provider</td>
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<tr>
<th>Core business</th>
<th>Hardware integration</th>
<th>IT / Data</th>
<th>Innovative ecosystems</th>
<th>Partnerships &amp; Financial support</th>
<th>Agile organization</th>
<th>Customer Knowledge</th>
<th>Comm. &amp; Brand image</th>
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Key Success Factors

Visions

Today

- Classic car manufacturer
- B2B provider
- Car mobility service provider
- Full mobility service provider

Future

- Classic car manufacturer
- B2B provider
- Car mobility service provider
- Full mobility service provider

In order to achieve their vision, car manufacturers need to draw a strategy based on the right Key Success Factors:
Customer behavior and expectations data gathering

- Car makers should understand in detail what and how are the user experiencing mobility in general. This could be done on different avenues, data generation from telematics services within owned vehicles and rideshare/short time rental programs. The mobility technology & the scalability of it across use cases and regions becomes more prominent for success.
- Customer demands depend highly on the city structure (hilly cities will not be convenient for bikes) as well as its transportation infrastructure. Therefore it is important to be specific in the strategy adopted as it should not be a general approach applied everywhere rather should be based by city.

Investments and partnerships

- Investments and partnerships with automated vehicles companies are of paramount importance to cope with the new technologies that will be invading the mobility market.
- **Partnerships are essential** to do work in a fast and effective manner without being restricted by the corset of 5-10-20 year old process and organizations that would not allow the same speed of innovation and risk taking.
- Partnerships with governments are important as well to allow cars used in the mobility services to be parked on the street making it easy accessible to users. In China, government are supporting car makers by providing them special parking spots on the street.
- Small car manufacturer should merge or join another CM or partner with an advanced AV company.
Engineering and manufacturing

- The model will require more robust exteriors and interiors as these vehicles will be used 10X of private passenger cars and the wear and tear will be significant.
- Smaller and easier & cheaper to produce and maintain.
- Those vehicles/model will play less focus on design & powertrain options but more on interior comfort and longevity (e.g. how to clean/ replace the vehicle carpet without dismounting all seats). We will also a bigger variety of those interior concepts, e.g. a few seats with bigger storage facilities or first-class comfort seats but build on top of the same chassis and powertrain platform.
- The safety attributes of the automated technology will be fully realized and electrification will allow for smaller motors opening up the platform for a whole new set of form factors to become available.

Financial support

- Significant amounts of cash to finance the advanced technology development but foremost a multi-year long rollout will low or even negative profit margins. The service rollout consumes significant resources besides the transportation itself (e.g. for fleet maintenance, provisioning, cleaning)
Efficient mergers and acquisitions

- It is of utmost importance to merge with and/or acquire companies in order to remain competitive and sustain growth. This will require an intricate and objective understanding of the self.
- Efficient mergers (software, hardware, humans) is efficient for the smooth integration which is imperative to entering this industry. It will be very difficult to smoothen out rough edges from the past in the future.

Empowered implementation squads

- The nature of the mobility services market requires that organizations be very nimble. It would be prudent strategy to have specialized and empowered individuals pulled from the ranks/hired who have knowledge of both the car manufacturing and mobility services industries.
- They should be empowered enough to take quick independent decisions that enable the organization staying one step ahead of the competition.
- They will be of high importance in dealing with partnerships, mergers and acquisitions.
Focus on electric cars

- Global environmental concerns and general awareness demands that car makers focus on electric cars.
- We recommend focus on human driven electric cars in the near future.
- Such initiatives help build a good brand image in addition to unlocking newer markets.

Invest in autonomous drive

- Autonomous drive is still a technology in its ‘testing’ phase. Also, there are many legal and philosophical (trolley problem) questions around it. Different countries/states may choose to deal with the questions differently hence it is difficult to predict where this industry is going to go.
- However, we are certain that this is the way of the future. It is recommended to invest in autonomous drive. However, not as an immediate revenue generating stream.
You need to have a great product, a great team culture of innovation and a relentless obsessive focus on the customer.

Timothy Papandreou, Founder of ‘Emerging Transport Advisors’, Senior Advisor for Eurogroup Consulting, San Francisco
Former Waymo Head of Strategic Partnership
Former Chief Innovation Officer from San Francisco Municipal Transport Agency (SFMTA)

...About how to succeed in Mobility Services.
THANK YOU!

To all the interviewees for all their valuable inputs:

- Jean-Bernard GUERREE – Partner Eurogroup Consulting San Francisco office
- Timothy PAPANDREOU – Senior Advisor Eurogroup Consulting San Francisco office
- Dr. Samit GHOSH - Partner P3 member of the Eurogroup Consulting network Nextcontinent, USA
- Patrick VERGELAS - Head of mobility services at Renault, France
- Jean-Christophe LABARRE - Alliance Venture – Innovation & Partnerships Director, France
- Luc CHAUSSON - Strategic project director "together 2025", VW
- Dihao ZENG - General Manager at Free2Move (PSA), China

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- Antoine BERGUE – Senior Consultant Eurogroup Consulting
- Eric THOREZ – ESCP Europe MBA mentor
- Amaury DE BUCHET - ESCP Europe professor

THANK YOU!
MBA in International Management Team

Cynthia NAHAS – Lebanese
3 years’ experience as a functional consultant at Murex Systems. Areas of expertise include solution development for credit and market risk, versatile enhancement and team leading.

Mathieu BEAU - French
Engineer, 8 years experience in IT services. Worked as a consultant and then led teams in both insurance and media industries. Particular skills in mobile applications and innovations.

Sudhanshu TRIVEDI - Indian
9 years in customer behavior group dynamics and marketing analytics with special focus on budget optimization and building customer loyalty.

Lijuan WANG - Chinese
8 years’ experience with the Daimler China Accounting Shared Services Centre. Led Inventory Management team for 3 years.

François RETHORE – French
10 years’ experience audit and finance in France, Europe and Asia. Part of the retail FMCG leader in Europe. Skills range from accounting and controlling to strategic planning.

Suraj AMIN – Indian
9 years experience with JPMorgan & Deutsche Bank. Expertise: competitive analysis, cost planning & forecasting, project and team management. Experience running own start-up.