Tomorrow’s car sharing

Catherine Kargas, MBA
Urban mobility

- Peer to peer
- Car sharing
- Other forms of sharing

Sharing
- Rental
- Taxi
- Ride sharing
- Micro transit

Dial a Ride
- Bus
- Train
- Metro

Other forms of sharing
- Uber
- Car sharing
- Ride sharing

© Catherine Kargas
Today, there’s a difference

+ Public transit
+ active mobility
= MaaS
Car sharing integral to MaaS

MaaS before A-MaaS
Car sharing in Canada
(Non-exhaustive list)

**Canadian Carsharing Cooperatives**

<table>
<thead>
<tr>
<th>Name</th>
<th>City</th>
<th>Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coast Car Co-op</td>
<td>Gibsons</td>
<td>BC</td>
</tr>
<tr>
<td>Community Car Share</td>
<td>Kitchener</td>
<td>ON</td>
</tr>
<tr>
<td>Kootenay Carshare Co-op</td>
<td>Nelson</td>
<td>BC</td>
</tr>
<tr>
<td>Modo the Car Coop</td>
<td>Vancouver</td>
<td>BC</td>
</tr>
<tr>
<td>Nanaimo CarShare Cooperative</td>
<td>Nanaimo</td>
<td>BC</td>
</tr>
<tr>
<td>OGO Carshare Coop</td>
<td>Kelowna</td>
<td>BC</td>
</tr>
<tr>
<td>Options for Cars</td>
<td>Toronto</td>
<td>Ontario</td>
</tr>
<tr>
<td>Peg City Car Co-op</td>
<td>Winnipeg</td>
<td>MB</td>
</tr>
<tr>
<td>Regina Car Share Co-operative</td>
<td>Regina</td>
<td>SK</td>
</tr>
<tr>
<td>Saskatoon CarShare Co-operative</td>
<td>Saskatoon</td>
<td>SK</td>
</tr>
</tbody>
</table>

*Last updates April 28, 2015*
Preparing for urban “usership”
## Automation is on its way

<table>
<thead>
<tr>
<th>Level</th>
<th>Automation Type</th>
<th>Description</th>
<th>System</th>
<th>System</th>
<th>System</th>
<th>Some Driving Modes</th>
<th>All Driving Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>High Automation</td>
<td>the <em>driving mode</em>-specific performance by an automated driving system of all aspects of the <em>dynamic driving task</em>, even if a <em>human driver</em> does not respond appropriately to a request to intervene</td>
<td></td>
<td></td>
<td></td>
<td>System</td>
<td>Some driving modes</td>
</tr>
<tr>
<td>5</td>
<td>Full Automation</td>
<td>the full-time performance by an <em>automated driving system</em> of all aspects of the <em>dynamic driving task</em> under all roadway and environmental conditions that can be managed by a <em>human driver</em></td>
<td></td>
<td></td>
<td></td>
<td>System</td>
<td>All driving modes</td>
</tr>
</tbody>
</table>

© Catherine Kargas
No crystal ball but …

FORD TARGETS FULLY AUTONOMOUS VEHICLE FOR RIDE SHARING IN 2021. INVESTS IN NEW TECH COMPANIES, DOUBLES SILICON VALLEY TEAM

- Ford announces intention to deliver high-volume, fully autonomous vehicle for ride sharing in 2021
- Ford investing in or collaborating with four startups on autonomous vehicle development
- Company also doubling Silicon Valley team and more than doubling Palo Alto campus

Phase 1 (now to 2016): 'Passive' autonomous driving

Phase 2 (2015 to 2019): Limited driver substitution

Phase 3 (2018 to 2022): Complete autonomous capability

Phase 4 (two decades): 100% autonomous penetration, utopian society

BMW, Intel team up to launch fully-autonomous robot taxis by 2021

Mercedes joins forces with Bosch to develop self-driving taxis

Source: Company Data, Morgan Stanley Research
No crystal ball but …

Tesla Quietly Announces Self-Driving Rideshare Network

Ford plans self-driving car for ride share fleets in 2021

MAVEN, GM'S CAR-SHARING SCHEME, IS REALLY ABOUT A DRIVERLESS FUTURE

2020-2021

President and CEO of Ford Motor Company Mark Fields speaks with reporters during the media preview of the 2016 New York International Auto Show in Manhattan, New York March 23, 2016. REUTERS/Eduardo Munoz - RTSBY7L
Attractiveness of personal mobility space

> $10 TRILLION per annum
Attractiveness of personal mobility space

> $10 TRILLION per annum
In tomorrow’s automated world …

Is there a difference?
In a world where big auto manufacturers and other deep-pocket organizations provide shared automated mobility services, what does it mean for the local car sharing organizations?
Thank you!

Catherine Kargas
ckargas@marcon-net.com
514.952.6500
@CatherinKARGAS