Digitalization, Automation and MaaS in the Bus and Motorcoach Industry

Marko Javornik
General Manager Voyego
Phase 1: Operational systems

- IT as Support

Phase 2: Apps

- Platform Economy

Phase 3: Integrated systems

- Integrated World

IT Evolution

- Products
- Sales/Distribution

UX

- Supply
- Demand
- Physical assets

Platforms

- products
- products
Personal Introduction

Marko Javornik

1. General Manager Voyego by Comtrade

2. Founder Digital Transportation Lab

3. Chair WG Governance & Business Models at MaaS Alliance
The Century of the Car
The BIG Issues: Pollution, Congestion, Accidents
CO2 & Space Footprint

- **Dirty**
  - Average Victorian car: 243.8
  - Top Range EV (Victorian grid): 208.1
  - Dual occupancy car: 121.9
  - Motorcycle: 119.6
  - Train: 28.6
  - Tram: 20.2
  - Bus: 17.7
- **Clean**
  - Top Range EV (Green power): 1.9
  - Bike: 1.6
  - Walking: 1.5

Legend:
- 🌍 = Grams of CO2 per person kilometre travelled
- 🌋 = Space in square metres required per occupant

Created by www.sensibletransport.org.au
Mobility Going Digital

MaaS

- Bicycle
- Car
- Train
- Bus
- Parking
- Traffic lights
The Big Opportunity: Unbundling Privately Owned Car
Challenge: Integrating Digital Transport in our Real World
### The Tipping Point: My Own Example

#### November 2019

#### PER YEAR CALCULATION

<table>
<thead>
<tr>
<th></th>
<th>BEFORE</th>
<th>AFTER (Based on first 8 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>15,500 km</td>
<td>13,403 km</td>
</tr>
<tr>
<td>Cost</td>
<td>7,000 EUR</td>
<td>5,010 EUR</td>
</tr>
<tr>
<td>CO2</td>
<td>2.61 tons</td>
<td>1.24 tons</td>
</tr>
</tbody>
</table>

#### Modal Split

<table>
<thead>
<tr>
<th>Mode</th>
<th>BEFORE</th>
<th>AFTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Car</td>
<td>89%</td>
<td>0%</td>
</tr>
<tr>
<td>Public Bus/Train</td>
<td>0%</td>
<td>16%</td>
</tr>
<tr>
<td>Active Mobility</td>
<td>7%</td>
<td>16%</td>
</tr>
<tr>
<td>Rent-a-car, Taxi</td>
<td>1%</td>
<td>23%</td>
</tr>
<tr>
<td>New mobility serv.</td>
<td>3%</td>
<td>45%</td>
</tr>
</tbody>
</table>
Future Vision: Mobility Powered by Digital Data
The New Reality

Physical Assets

Digital Assets

VOYEGO BY COMTRADE
THANK YOU!
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NORTH AMERICA | JAN. 13-14, 2020

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