Tech to the Rescue: Can Modern-Day Solutions Blaze the Trail to Congestion Relief?

- Maryland Governor Larry Hogan
- New Hampshire Governor Chris Sununu
- Gregory Slater, Chair, AASHTO Data Management & Analytics Committee; Administrator, Maryland State Highway Administration
- Anant Dinamani, Principal, Deloitte Consulting LLP
- Ya-Ting Liu, Director of Government Affairs & Policy, Via

#WeTheStates
Severe Congestion
Moderate Congestion
Low Congestion
Pedestrian Crashes
Traffic Relief Plan (TRP) Corridor
Transportation Systems Management & Operations (TSMO) Corridor
Introduction to Deloitte’s Global Future of Mobility Practice

**Background**

Convergence of industry-changing forces and mega-trends are disrupting existing markets and creating an **entirely new system of personal mobility**

**The Future of Mobility offers an extraordinary promise**, namely that more people and goods will be able to move faster, safer, cheaper, and cleaner than today

**What We Do and Who We Serve**

We work closely with the private sector, governments, civic leaders, unions, NGOs, technologists and universities globally to **shape the future of mobility ecosystem**

We help them **understand the disruption underway, imagine the future and “art of the possible”** to shape strategy, use cases, policy, restructure operating and business models, and adopt new technologies, mobility innovation, and digitization to **transform how their communities and organizations can succeed in the new mobility ecosystem**
Cities around the world are straining to keep pace with rapid urbanization, population growth, and infrastructure demands.

**Global Population Relative Urbanization (%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Urban Population</th>
<th>Urbanization (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>2.5B</td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>2000</td>
<td>6.1B</td>
<td></td>
<td>46%</td>
</tr>
<tr>
<td>2050</td>
<td>9.6B</td>
<td></td>
<td>66%</td>
</tr>
</tbody>
</table>

- **500** cities with populations over 1 million now exist around the world.
- **41** mega-cities with populations over 10 million are expected by 2030.
- **3.4B** additional residents will be living in cities by the middle of the century.

**Shortfalls in Global Infrastructure Investments**

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand</th>
<th>Supply</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>3.7</td>
<td>2.7</td>
<td>1.0</td>
</tr>
<tr>
<td>2000</td>
<td>2.5</td>
<td>2.0</td>
<td>0.5</td>
</tr>
<tr>
<td>2050</td>
<td>1.5</td>
<td>1.0</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Implications for Future Urban Areas in the US**

- City infrastructure is incapable of growing at a rate comparable to urban population growth.
- Congestion will increase as new forms of transportation continue to develop and oversaturate existing infrastructure and capacity.
- Economic growth and overall quality of life will decrease as the vitality and attractiveness of a city is compromised.

**Existing transportation systems fall short of meeting current and future demand**

- **1.2T** could be lost in US GDP by 2025 due to transportation infrastructure deficiencies.
- **73%** of the metropolitan workforce commute for 90 minutes or more.
- **30%** of traffic in urban areas is caused by cars looking for parking.

**Source:** “Smart City Challenge,” U.S. Department of Transportation; 2015 Urban Mobility Report, Texas A&M Transportation Institute; “Smart Cities Readiness Guide,” Smart Cities Council; TomTom Traffic Index; World Economic Forum, Strategic Infrastructure report; Deloitte Analysis.
Cities need digital platforms and solutions to connect users, service providers, and infrastructure to greatly improve the flow of people and goods.

Integrated Mobility Platform
Digital platform that overlays and connects disparate physical transportation systems

City & Citizen Engagement

- Mobility Market Optimization
- Infrastructure Management
- Mobility Management

Foundational Platform

Source: Deloitte analysis
Reducing Congestion Through On-Demand Transit

August 2019
Ya-Ting Liu | Director of Government Affairs & Policy
ya-ting@ridewithvia.com
On-demand, dynamic shuttle networks: efficient, affordable, accessible transit

Traditional bus systems

- Long walks to and from bus stops
- Expensive, slow-moving vehicles
- Unpredictable and often long wait times
- Fixed routes that can’t adjust to traffic

Via: on-demand public transit

- Corner-to-corner trips with same quality of service throughout whole zone
- Dynamic routes adapt to real-time traffic + demand
- Lower operating cost and higher ridership
- Includes WAVs, solutions for unbanked, call dispatch
The world’s first on-demand transit system operating at scale on a global basis
Via’s partnerships with cities, transit agencies, and operators cover a wide variety of use cases.

**Los Angeles + Seattle**
First/last mile service to transit hubs with focus on low-income neighborhoods.

**Arlington, TX**
The only public transit service in a city that for decades was largest in U.S. with no transit.

**Sittingbourne, UK**
Connecting people to jobs and a rail station in a suburban/rural area.

**Berlin**
A mainly electric fleet of 150 vehicles (growing to 300) - largest on-demand public transit deployment in world.
Tech to the Rescue: Can Modern-Day Solutions Blaze the Trail to Congestion Relief?

- Maryland Governor Larry Hogan
- New Hampshire Governor Chris Sununu
- **Gregory Slater**, Chair, AASHTO Data Management & Analytics Committee; Administrator, Maryland State Highway Administration
- **Anant Dinamani**, Principal, Deloitte Consulting LLP
- **Ya-Ting Liu**, Director of Government Affairs & Policy, Via