Having a look at the Global Status Quo – Where is the Transition?
Are we going to sacrifice our planet to drive fossil fuel cars?
Transport emissions significant and growing as share of total emissions

Transport is responsible for:

- **7.5 Gt of CO₂ emissions** and 28% of global final energy demand
- **14% of economy-wide CO₂ emissions** and 23% of emissions by fuel combustion
- Transport emissions broken down into four primary segments

Freight transport emissions increasing faster than passenger transport

- Passenger transport emissions increased by 36% (2000 to 2015)
- Freight transport emissions have increased by 75%
- Emission share by freight share increased from 35% in 2000 to 41% (2015)
- Passenger transport showed strong increase of private cars, freight saw increase of long-distance trucks

Travel demand growing worldwide, spurring increase in private motorization

Private motorization in non-OECD grew by +266%

Status of Passenger Mobility

- Modal share shifts rapidly towards private autos and air travel
- Public transport services being less used in OECD and have slow growth in non-OECD

Emission gap growing, but low carbon transport has high mitigation potential

- Business-as-Usual (BAU) pathways project further increase, up to 18 Gt CO₂
- For transport to contribute to the 1.5 degree Celsius goal of the Paris Agreement, CO₂ emissions have to go down to 2 Gt CO₂ by 2050
Transport measures in NDCs lack ambition and comprehensiveness

- **76% of the submitted 165 NDCs** highlight the transport sector as a mitigation source
- Only **8% of NDCs** propose transport sector emission reduction targets
- Passenger transport dominates over freight:
  - **62% of NDCs** highlight passenger transport measures
  - only **22%** focus on freight transport

![Bar chart showing the number of NDCs highlighting modes](chart.png)
NDCs emphasize 'Improve' measures over 'Avoid' and 'Shift' measures

- Majority (about 65%) of the 356 proposed mitigation measures in NDCs represent ‘Improve’ strategies
- Measures, such as e-mobility and fuel economy standard improvements are favored

⇒ Current NDCs are not sufficient enough to reach Paris Agreement goals
Synergies in SDGs and NDCs to ensure ambitious action

Few countries have targets for transport

- Progress on SDGs are tracked through **Voluntary National Review (VNRs)** which lack specific transport actions

- **2030 Agenda and Paris Agreement** can work together by:
  - **Coordinating** activities and targets
  - **Mainstreaming** goals into policy planning
  - **Optimizing** financial resources
  - **Building** mutually reinforcing monitoring and reporting frameworks
Suggest to convert table to map or put separately at bottom of deck (with other slides to be developed later).
Too much info to absorb in slide show.
Karl Peet; 31/08/2018
Avoid-Shift-Improve Framework in support of low carbon mobility

**Avoid** and reduce the need for motorized travel

**Shift** to more environmentally friendly modes

**Improve** energy efficiency of transport modes
Policy Instruments of Sustainable Transport

- Solutions **do exist** and they are being implemented in many places around the world
More cities embrace measures on Transport Demand Management

- 8 cities introduced new **low emission zones (LEZs)** in 2017, bringing the global total to 241 cities
- **Congestion charging** has been implemented in relatively few cities in Europe (7 cities) and Singapore
- **Vehicle quota systems and vehicle restrictions** are used in 28 cities around the world, proved to be successful in Shanghai, Japan and Latin America,
High-speed rail booming in China, expanding in other key markets

- **Total HSR network** spans around 32,000 km
- **China** leads growth of high-speed rail
- Potential to shift away from domestic and international aviation

**Global Development of HSR**

- HSR grew share from 10 to 20%

![Graph showing the global development of HSR from 2010 to 2016](image_url)
Bus Rapid Transit slowing down after strong growth in past decade

- **BRT systems** implemented in 169 cities by end of 2017
- **Total length of systems** increased to 5,000 km
- Only 2 new systems opened in 2017


**Walking share highest in dense cities and developing countries**

- Walking in **Nairobi** accounts for 61% of trips
- **Cities in Asia** record between 19 and 41%
- Just 13% of trips on foot in **Brisbane** and even fewer in **North America**

<table>
<thead>
<tr>
<th>Country</th>
<th>Walking in percent of all trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairobi (Kenya)</td>
<td>61</td>
</tr>
<tr>
<td>Dar es Salaam (Tanzania)</td>
<td>48</td>
</tr>
<tr>
<td>Cape Town (South Africa)</td>
<td>34</td>
</tr>
<tr>
<td>Kathmandu (Nepal)</td>
<td>41</td>
</tr>
<tr>
<td>Mumbai (India)</td>
<td>28</td>
</tr>
<tr>
<td>Tokyo (Japan)</td>
<td>23</td>
</tr>
<tr>
<td>Almaty (Kazakhstan)</td>
<td>19</td>
</tr>
<tr>
<td>Zurich (Switzerland)</td>
<td>33</td>
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<tr>
<td>Vienna (Austria)</td>
<td>28</td>
</tr>
<tr>
<td>London (United Kingdom)</td>
<td>24</td>
</tr>
<tr>
<td>Cuenca (Ecuador)</td>
<td>31</td>
</tr>
<tr>
<td>Rio de Janeiro (Brazil)</td>
<td>29</td>
</tr>
<tr>
<td>Bogota (Colombia)</td>
<td>25</td>
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<tr>
<td>San Francisco (USA)</td>
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<tr>
<td>Bellingham (USA)</td>
<td>12</td>
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<tr>
<td>Ottawa (Canada)</td>
<td>11</td>
</tr>
<tr>
<td>Sydney (Australia)</td>
<td>17</td>
</tr>
<tr>
<td>Brisbane (Australia)</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Various
Bikesharing gaining popularity in past decade, accelerated through dockless services

- Bikesharing services accelerated since 2010, expanding to cities in Asia, Europe and North America
- 33% growth between 2016 and 2017, motivated by launch of dockless bikesharing services in China and the US
- First bikesharing in Africa opened in 2016 in Morocco, followed by service in Cairo in 2017

Electric vehicles growing rapidly but overall share still modest

- Road transport accounts for 75% of transport emissions
- In 2017, EVs passed 3 million, from near-zero in
- 40% of EVs are driven in China
- Global electric bus stock was around **380,000 buses in 2017** (13% of the global bus fleet)

![Passenger Electric Vehicle Stock (4-wheelers)](image)

Biofuel blend mandates expand further

- 70 countries have biofuel blending mandates
- Advanced biofuel regulations introduced in Denmark, Italy and the US in 2017

Biofuel Blend Mandates

- Current Ethanol Blend Mandates (% Ethanol)
  - Less Than 5%
  - 5 - 10%
  - 10 - 15%
  - 15 - 20%
  - More Than 20%

- Current Biodiesel Mandates (% Biodiesel)
  - Less Than 5%
  - 5 - 10%
  - 10 - 15%
  - More Than 15%
  - No Mandates or No Data

Fuel economy a tested tool to reduce CO₂ emissions

- Since 1970s countries implement standards on LDV fuel economy
- 37 countries have LDV fuel economy standards
- Just 5 countries with HDV fuel economy standards

![Graph: CO₂ Emissions Performance and Standards for Light Duty Vehicles (2000-2025)](Source: ICCT)

- Brazil
- Target for 2017: 138
- Canada
- Target for 2025: 99
- China
- Target for 2025: 99
- European Union
- Target for 2021: 95
- India
- Target for 2022: 113
- Japan
- Target for 2020: 122
- Mexico
- Target for 2016: 145
- Republic of Korea
- Target for 2020: 97
- South Africa
- Target for 2020: 142
- United States of America
- Target for 2025: 99
### How is the TCC-GSR structured?

| Part I. Executive Summary and Global Overview | A. Executive Summary  
B. Global Overview |
|---------------------------------------------|------------------|
| Part II. Transport Demands and Impacts | A. Transport Demand  
B. Transport Emissions and Other Impacts  
C. Transport Mitigation Potential |
| Part III. Transport and Climate Change Policy Measures | A. Policy Framework  
B. Policy Landscape  
I. Transport Demand Management  
II. Urban Public Transport  
III. Railways  
IV. Walking and Cycling  
V. Shared Mobility  
VI. Fuel Economy  
VII. Electric Mobility  
VIII. Renewable Energy |
| Part IV. Mobilizing Action on Transport and Climate Change | A. Finance  
B. Stakeholders |
Which organizations are contributing to the TCC-GSR?

- The TCC-GSR is **primarily supported** by these organizations:

  - Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
  - giz
  - Hewlett Foundation

- Organizations/experts contributing to the TCC-GSR **strategy team**:

  - ALSTOM
  -CAF Development Bank of Latin America
  - ECF
  - IRENA
  - International Transport Forum
  - IsDB
  - ITDP
  - Mobilise Your City
  - REN21
  - UITP
  - VREF
  - Walk21
  - The World Bank
  - World Health Organization

- Others contributing as **section authors** and **feedback teams**
How can you contribute to the TCC-GSR?

• SLoCaT is looking for participation from the transport community (and peers in related fields):
  • To provide **quantitative or qualitative data**
  • To **peer review** draft sections (10-21 September)
  • To support **outreach** on report results

Please contact us at tcc-gsr@slocatpartnership.org
THE REAL THREAT OF CLIMATE CHANGE ISN'T ONE BAD GUY DOING SOMETHING EVIL....

...IT'S ALL OF US CONTINUING TO DO THE SAME OLD THINGS....
Thank You!

For more information, please visit:

http://www.slocat.net/tcc-gsr

#TransportClimateStatus

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