

Urbanization Rate

New Challenges

Urban Mobility



Symposium 2018

What Moves US – Innovation for Tomorrow’s Mobility

Jeff Hemphill

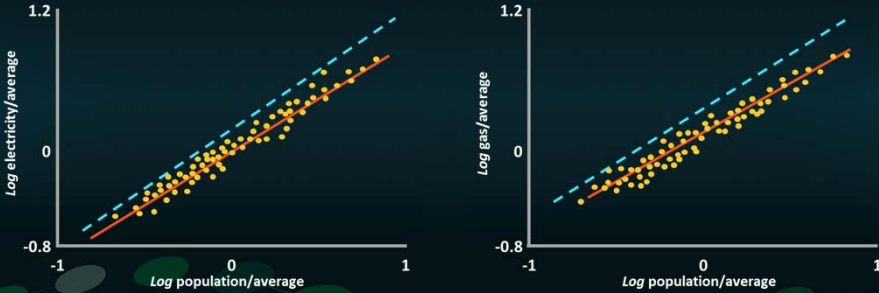


Urbanization Rate

Urban Mobility

New Challenges

We Need Cities for Efficiency!




Source: Urban and Rural—Population and Energy Consumption Dynamics in Local Authorities within England and Wales, The University of Sheffield (2016)

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We Need Cities for Efficiency!

New Challenges

We Need Cities for Innovation!

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We Need Cities for Efficiency!

We Need Cities for Innovation!

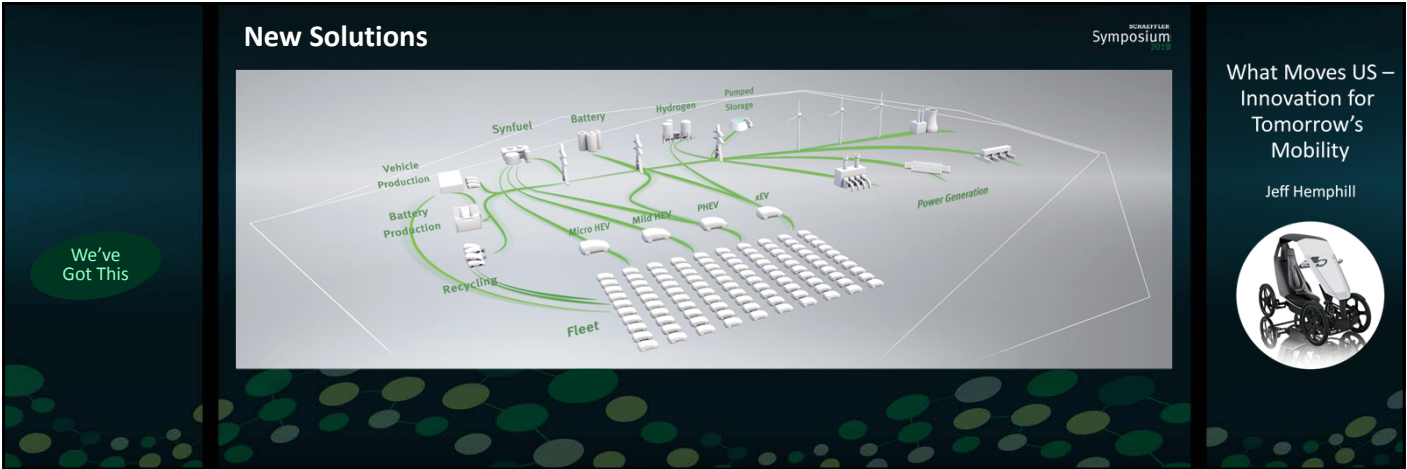
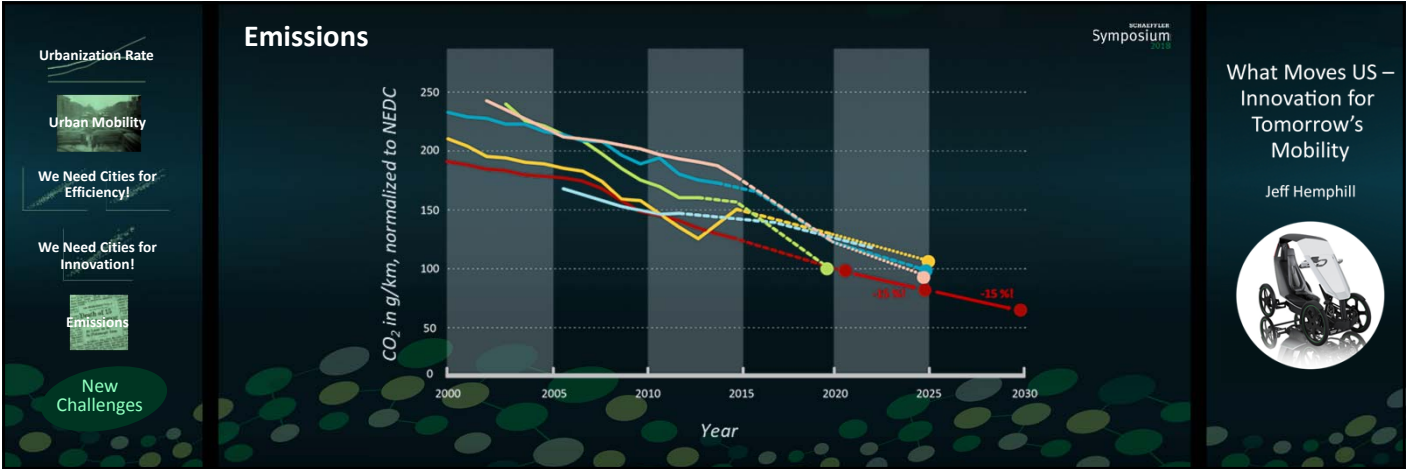
New Challenges

Emissions

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Energy Chain

New Solutions

New Solutions (Bio Hybrid)


- ▶ Weather protection
- ▶ Electric motor assistance
- ▶ Zero emission
- ▶ Suitable for bicycle paths
- ▶ No need for driving license



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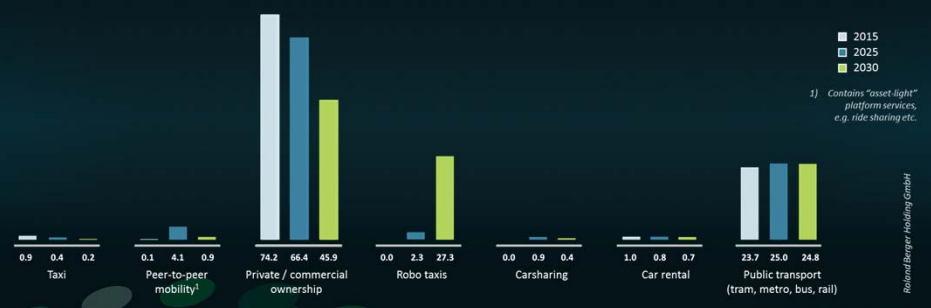


Energy Chain

Bio Hybrid

New Solutions

New Solutions



| Solution | 2015 (%) | 2025 (%) | 2030 (%) |
|---|----------|----------|----------|
| Taxi | 0.9 | 0.4 | 0.2 |
| Peer-to-peer mobility ¹⁾ | 0.1 | 4.1 | 0.9 |
| Private / commercial ownership | 74.2 | 66.4 | 45.9 |
| Robo taxis | 0.0 | 2.3 | 27.3 |
| Carsharing | 0.0 | 0.9 | 0.4 |
| Car rental | 1.0 | 0.8 | 0.7 |
| Public transport (tram, metro, bus, rail) | 23.7 | 25.0 | 24.8 |


1) Contains "asset-light" platform services, e.g. ride sharing etc.

Roland Berger Holding GmbH

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Bio Hybrid

New Solutions

New Solutions – Schaeffler Mover



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Energy Chain

Bio Hybrid

Schaeffler Mover

New Solutions

Powertrain and Chassis Solutions



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Powertrain Solutions

New Solutions

New Solutions

CO₂ in g/km, normalized to NEDC

Year

Varying Global Regulations and Consumers

| | Micro HEV | Mild HEV | Plug-in | BEV |
|--------------|-----------|----------|---------|-----|
| Engine | | | | |
| Transmission | | | | |
| Driveline | | | | |

Numerous Powertrain Options

New Forms of Mobility

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Mobility

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Schaeffler Symposium September 6, 2018

Mobility for tomorrow