

The Role of Electrification of Transportation in Decarbonisation

November 7-8, 2018, Paris France

Fifth Annual Expert Workshop: Challenges in Electricity Decarbonisation

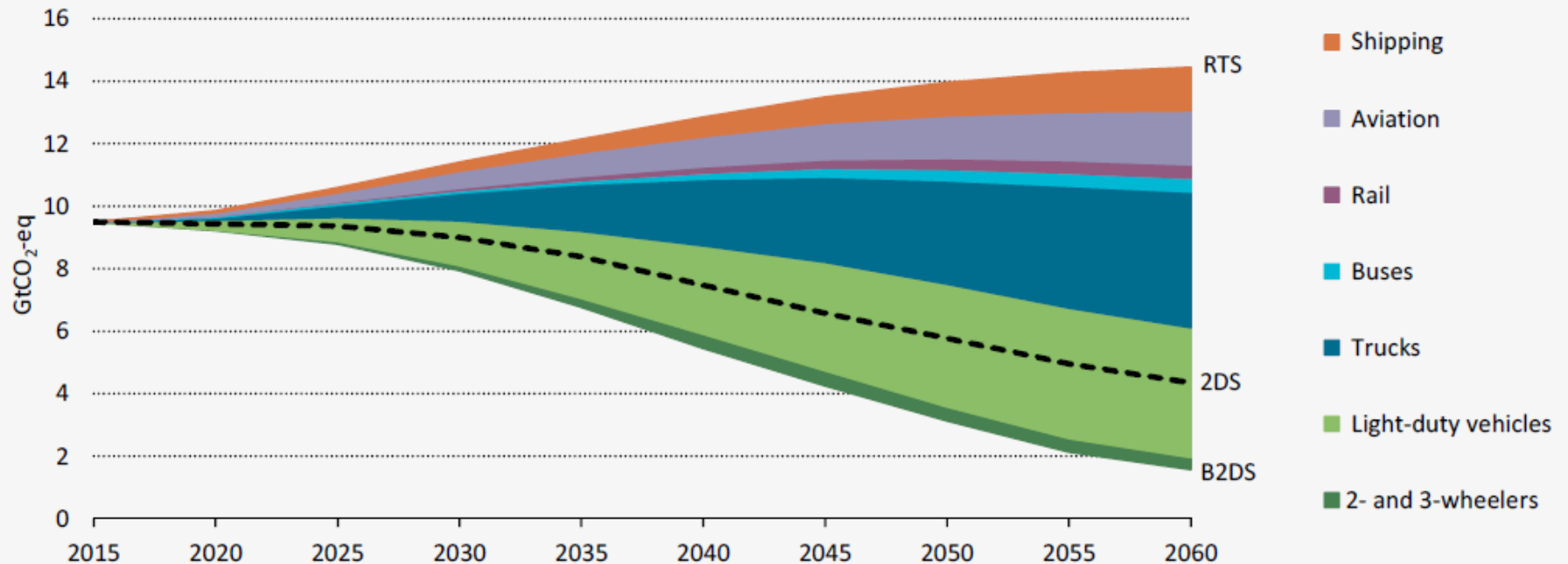


ClimateWorks
FOUNDATION

Bottom line takeaways

1. Solving the climate challenge requires addressing the ways we move goods and people
2. Transport is the #1 highest emitting sector in US and EU and fast(est) growing in Asia.
3. The global transport sector faces once-in-a-century transformational opportunity
4. Existing barriers to clean mobility can be significantly overcome in the next ~5-7- years
5. Success not “inevitable” – requires active effort to advance enabling policy and overcoming entrenched interests

To achieve well-below 2C, we must peak by ~2020 then decline.
Options exist to put us on pathway but action is needed now to realize them



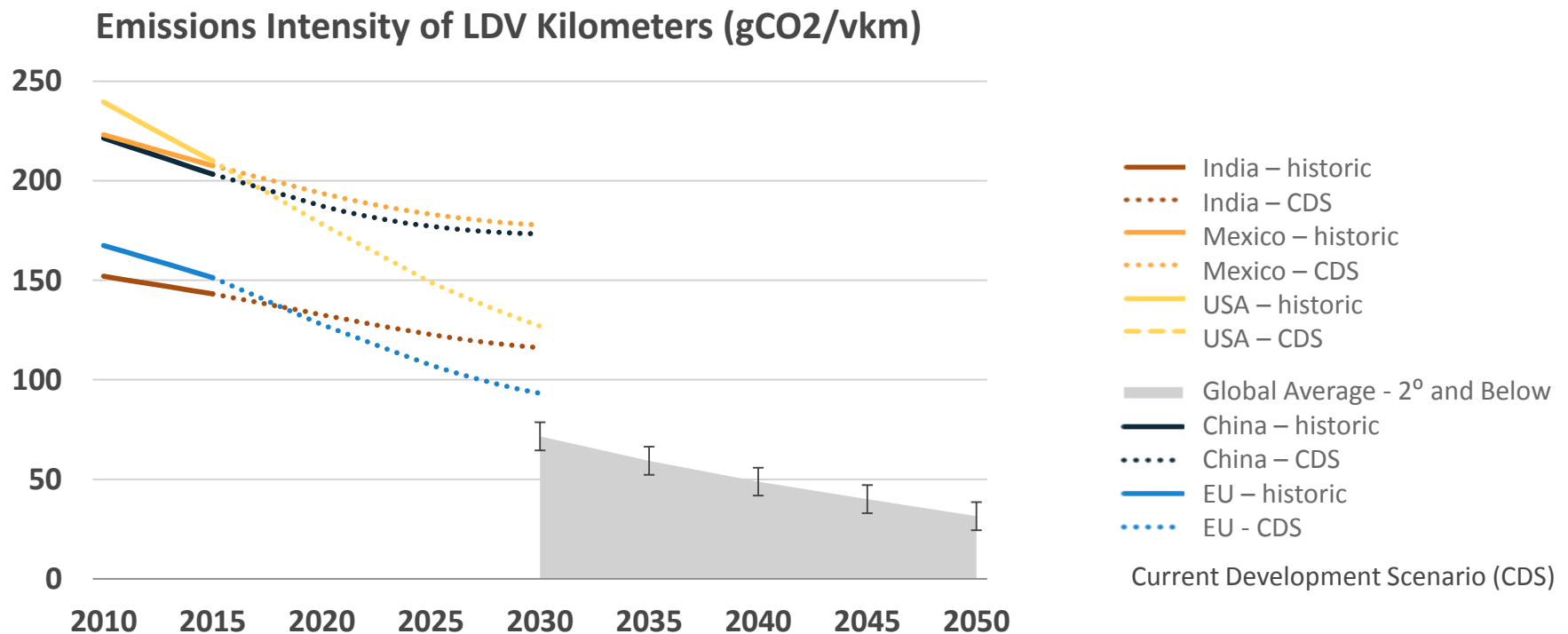
Source: IEA (2017a), *Mobility Model*, March 2017 version, database and simulation model, www.iea.org/etp/etpmodel/transport/.

Key point *WTW GHG emissions from transport are 83% lower in 2060 than in 2015 in the B2DS, while in the 2DS they decline by 54% over the same period.*



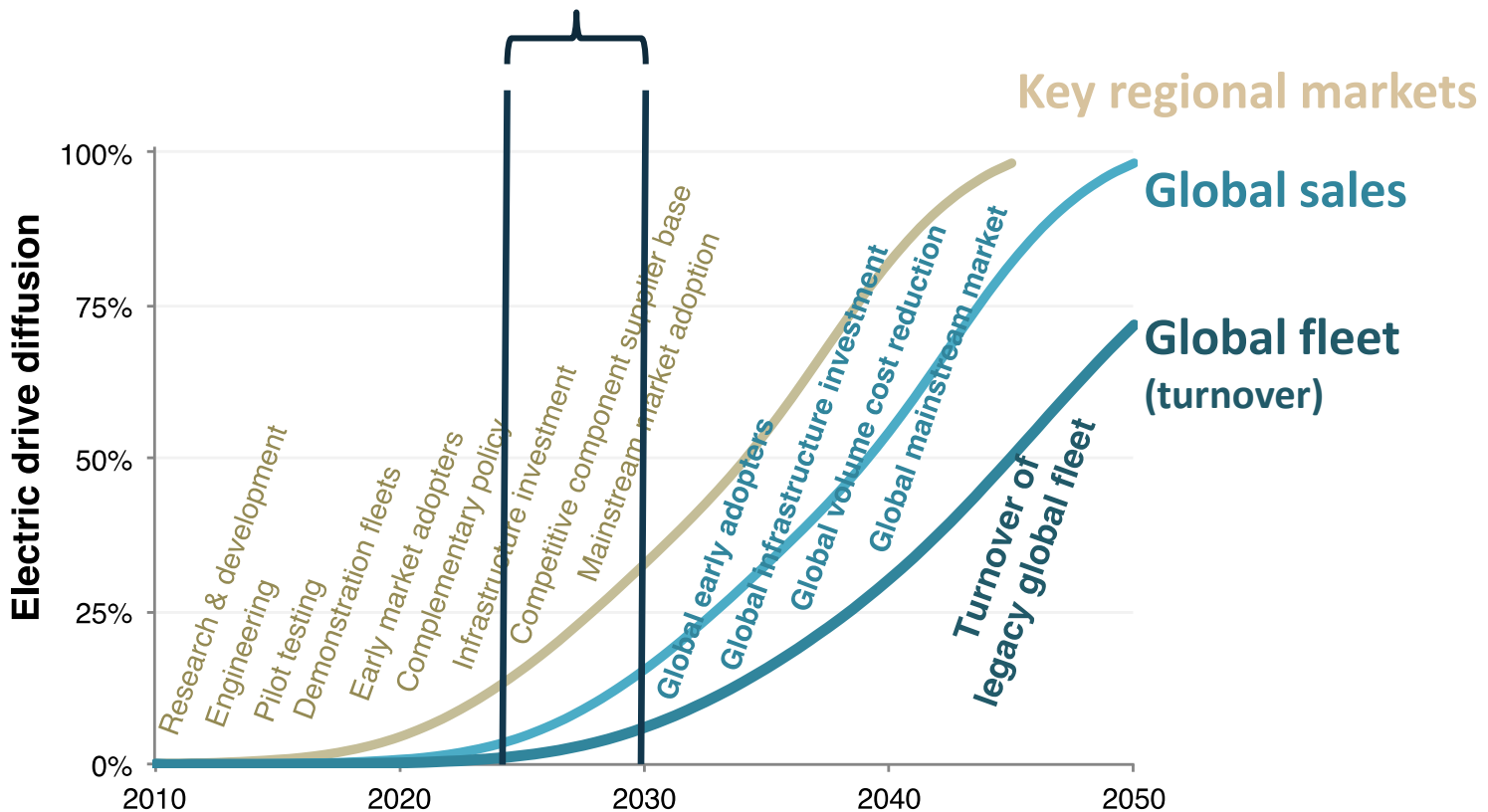
Beyond Efficiency

Existing policies including efficiency standards for passenger vehicles and goods movement are changing the vehicle market and saving GTCO_{2e} but much more is needed to be on track for a 2°C or less future.

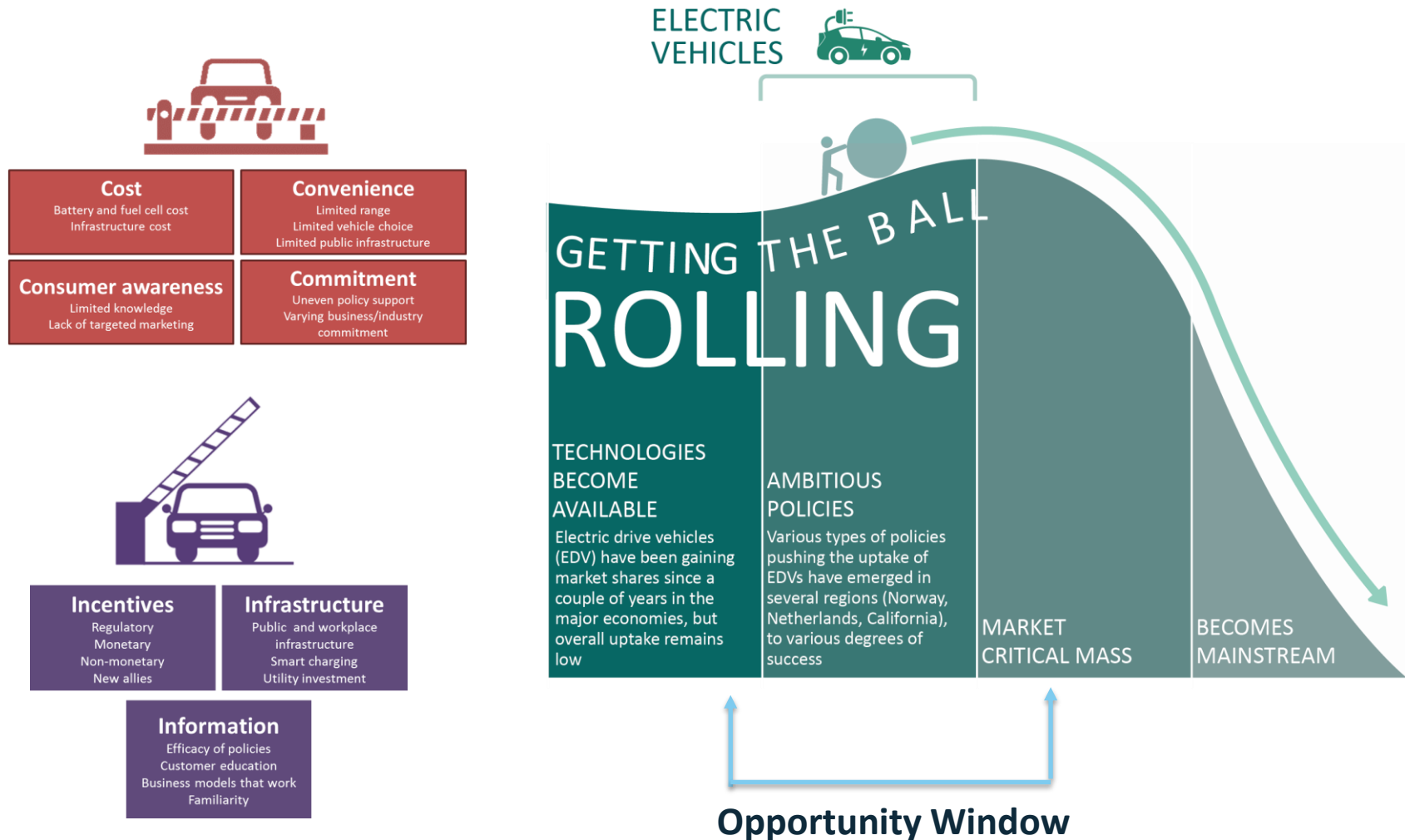


Potential tipping point in ~5-7 years

~15% of global sales EDV by 2030
~15% of sales in key markets EDV by 2025



Overcoming barriers to EDV market success



Roles for philanthropy

Support **NATIONAL**
and **SUB-NATIONAL**
policy



- National/State governments
- Increase ambition and support policy action
- Smart regulations

Engage **BUSINESS**
stakeholders



- Automakers,
- Mobility providers
- Tech companies,
- **Utilities**

Empower **CITIES** to
pull ahead



- City leaders and planners
- Transit providers
- Scalable pilots and policies

OVERCOME
BARRIERS
to commercial success



- Infrastructure and smart charging
- Consumer awareness
- Scale economies

Can we move even faster?

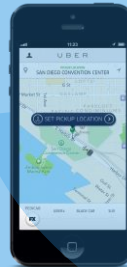
Shared



Electric



Reduced car
ownership



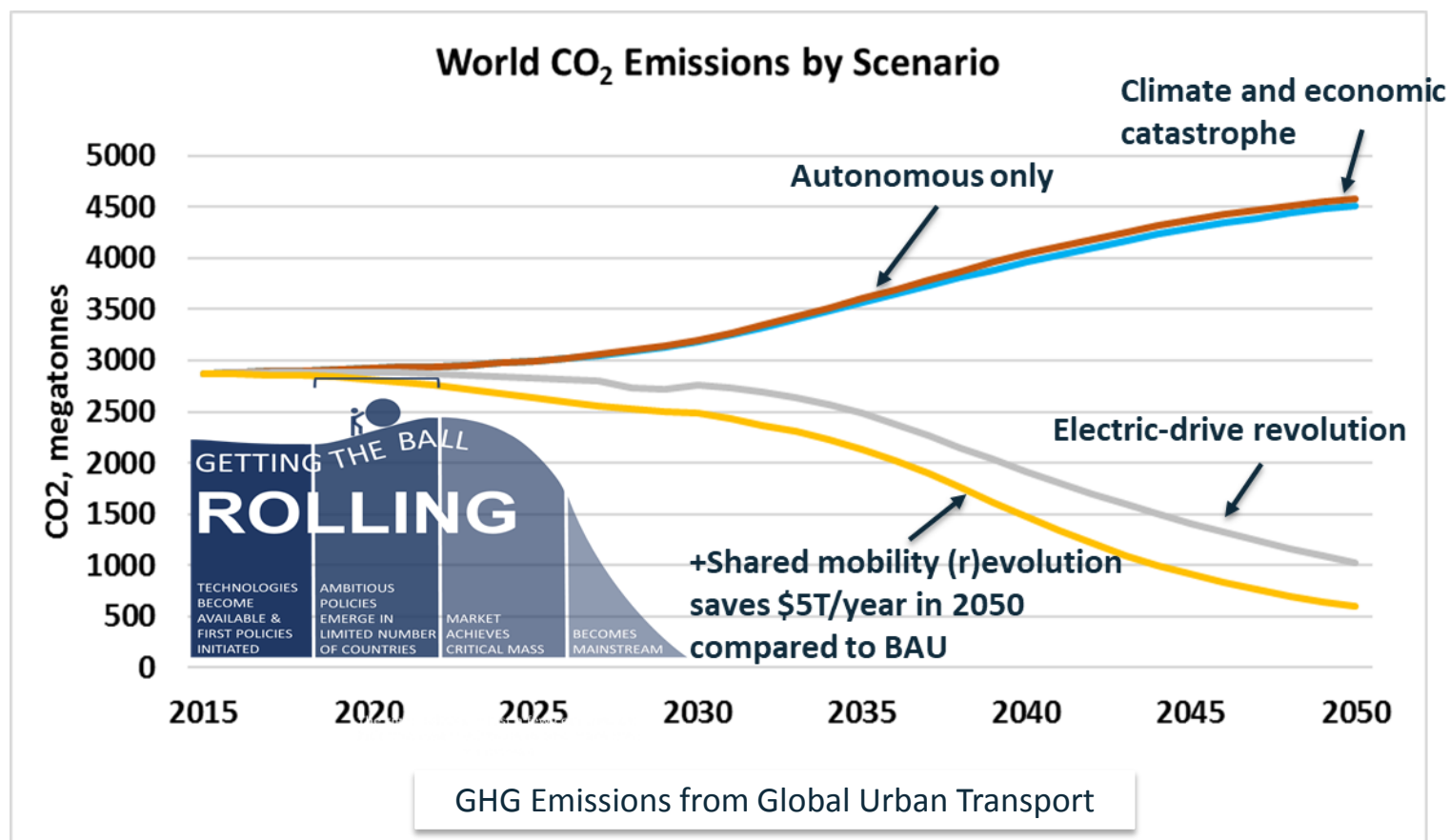
Increased
urbanization



Autonomous

Combining sharing and AVs accelerates benefits

3.5GT+ CO₂ abated in 2050 (urban transport)
(+ benefits for safety, health, equity, cost savings, etc.)



How to get to on right path?



Shared



Electric (connected to clean grid)



Right-sized



Autonomous



Public transit complementary



Cities designed for people

New partnerships needed

Public sector



- State and National governments
- City governments, planners, and architects
- Public transit providers
- Universities

Key constituents



- Equity, access, and affordability advocates
- Transit advocates
- ENGOS
- Labor
- Safety community

Businesses



- Private transportation service providers
- Vehicle suppliers and other businesses
- Utilities!

Closing thoughts



Together, we can choose the right path!