SUSTAINABLE URBAN MOBILITY

Adj. Prof. Dr. Andrea Giuricin
CESISP – at University Milan Bicocca
Senior Transport Consultant at The World Bank
Adj. Prof. UMN, MSUC, University Southern California, Purdue University
Visiting Professor at China Academy Railway Sciences, Beijing, China
Visiting Professor Chiang Mai University, Thailand
CEO - TRA Consulting

Budva, 18th of June 2019

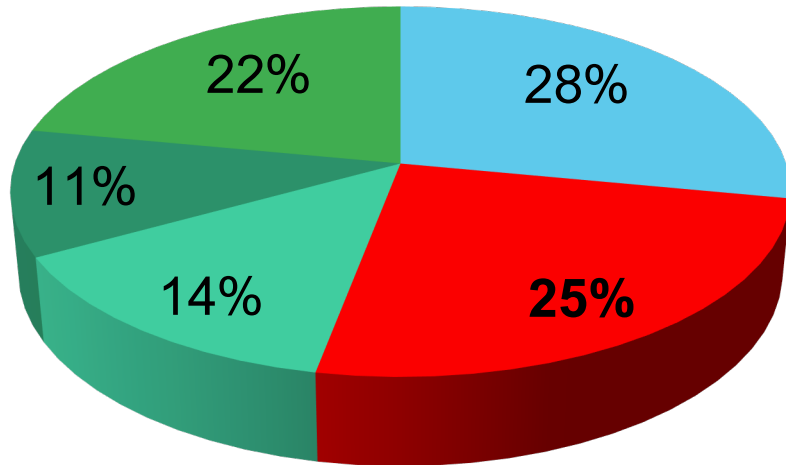# Solving a problem

Two main challenges

Pollution

A woman wears a face mask as heavy air pollution continues to be a problem in Bangkok, Thailand, 21 January 2019. // EPA-EFE PHOTO
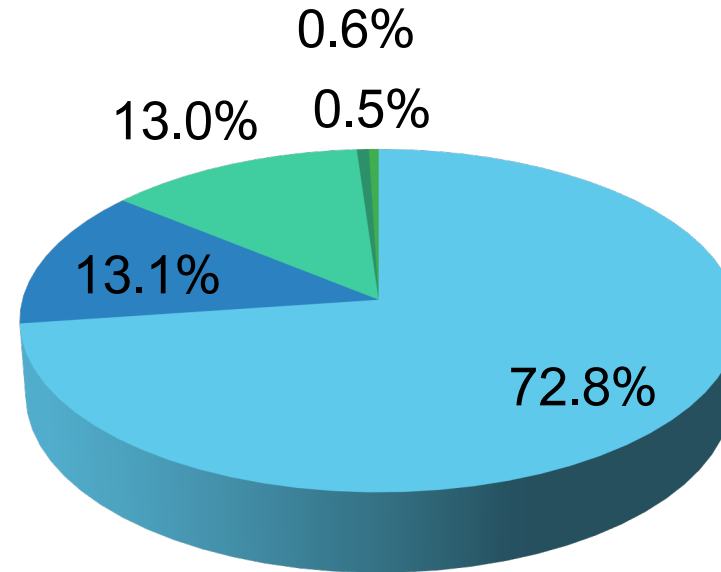
Congestion

Mobility Challenges

CO2 Emission in Europe

28%
25%
14%
11%
22%

- Energy Production - Transport
- Industry - Residential
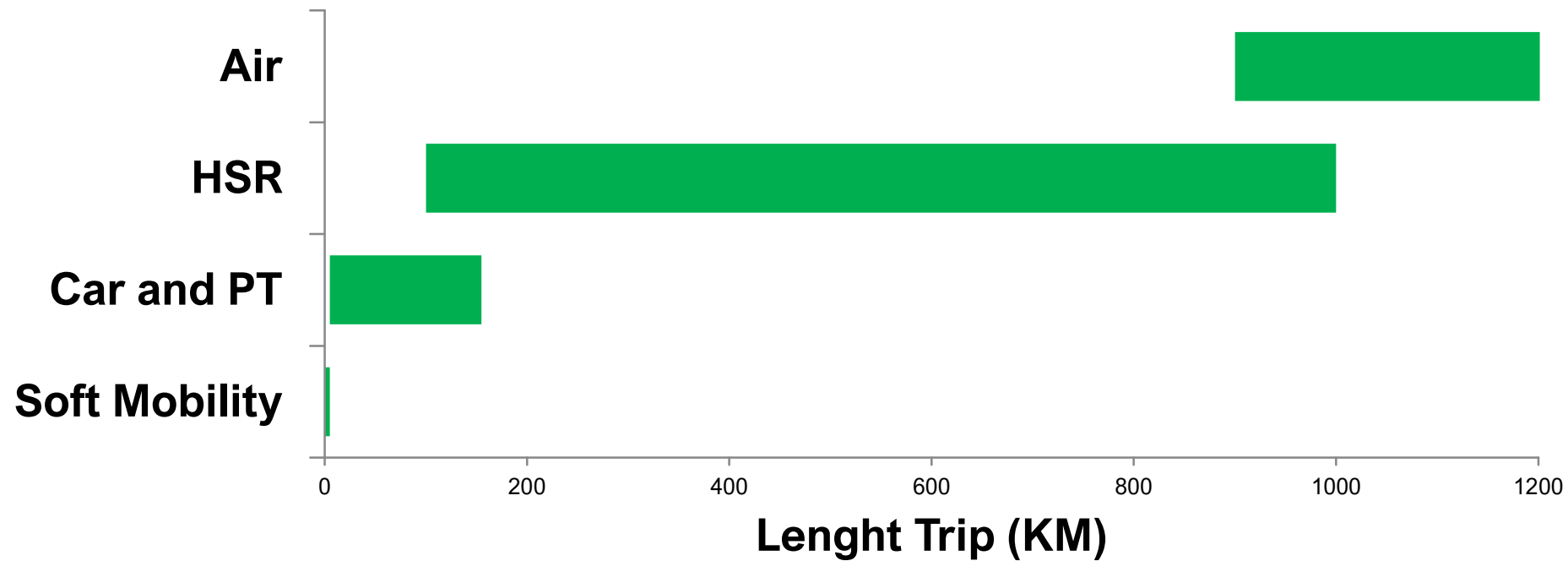- Others

GHG Emission

0.6%
0.5%
13.0%
13.1%
72.8%

- Road - Air - Sea - Rail - Other

Intermodality

Mobility in 2020

Mobility in 2020

Autonomous Vehicles

Electric Vehicles

PT

Mobility in 2020

Sales EV in China (in thousands)
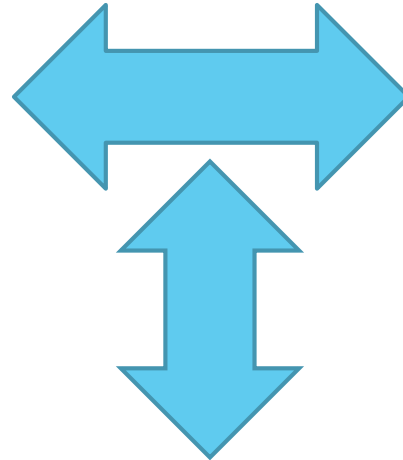
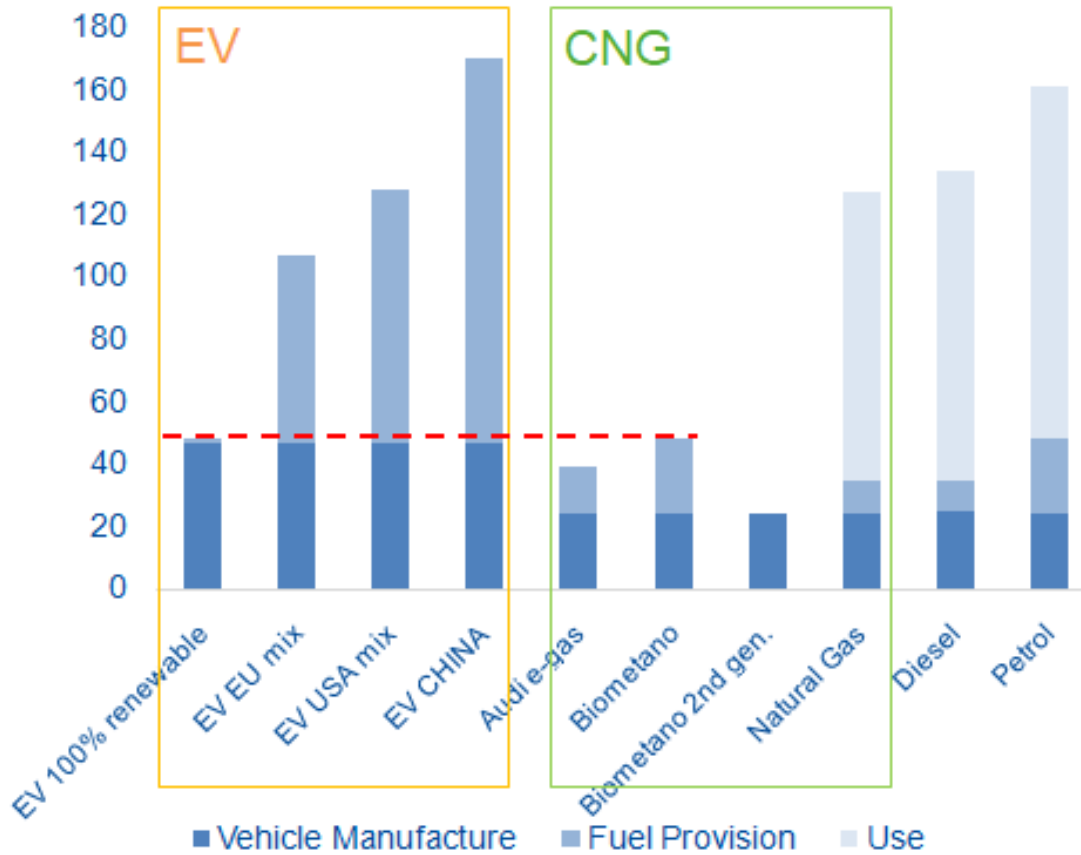| Year	Sales
2015	~320
2016	~500
2017	~780
2018	~1,300
2019	~2,000
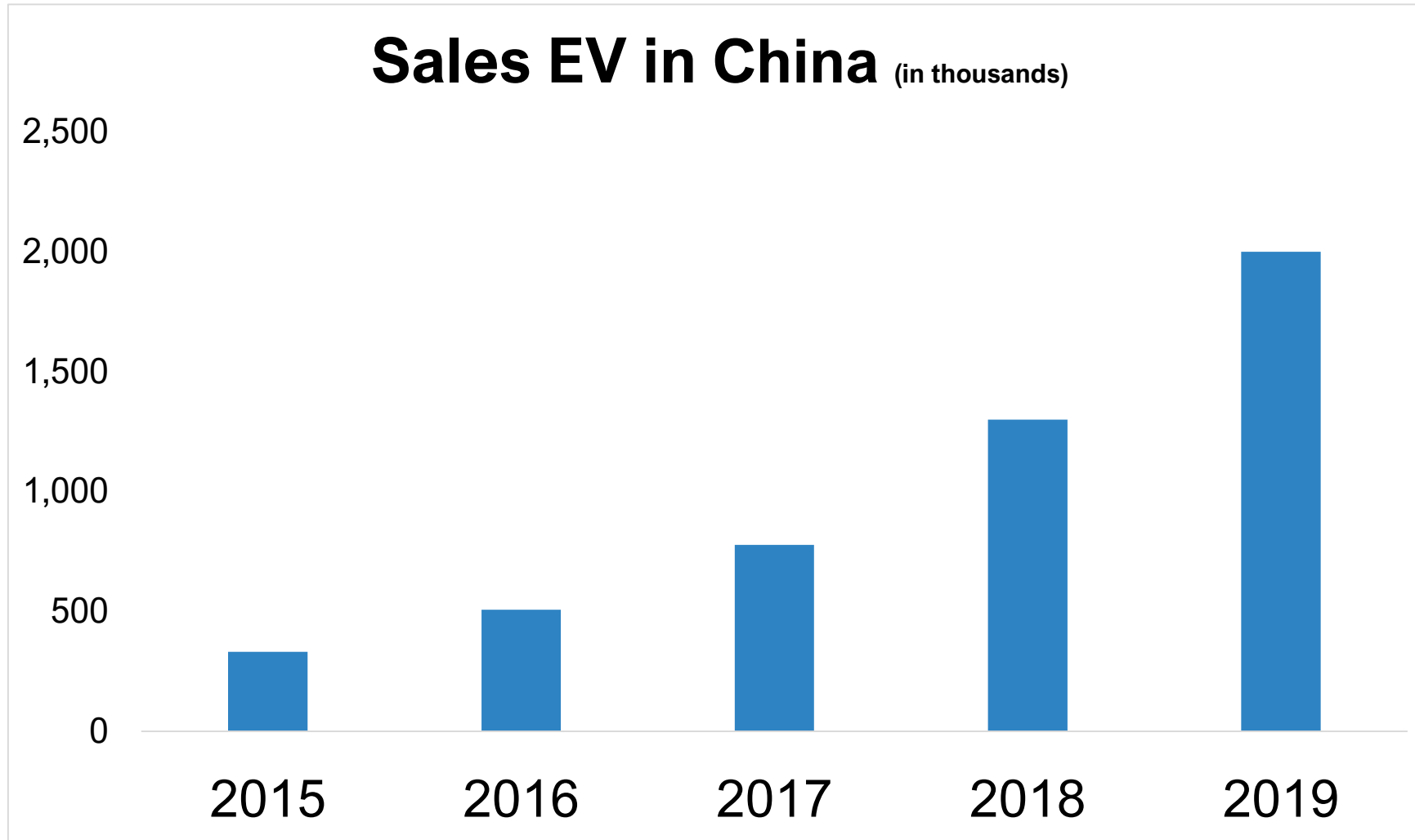
Urban Mobility

➢ Shenzhen made the complete switch to E-bus more than one year ago.

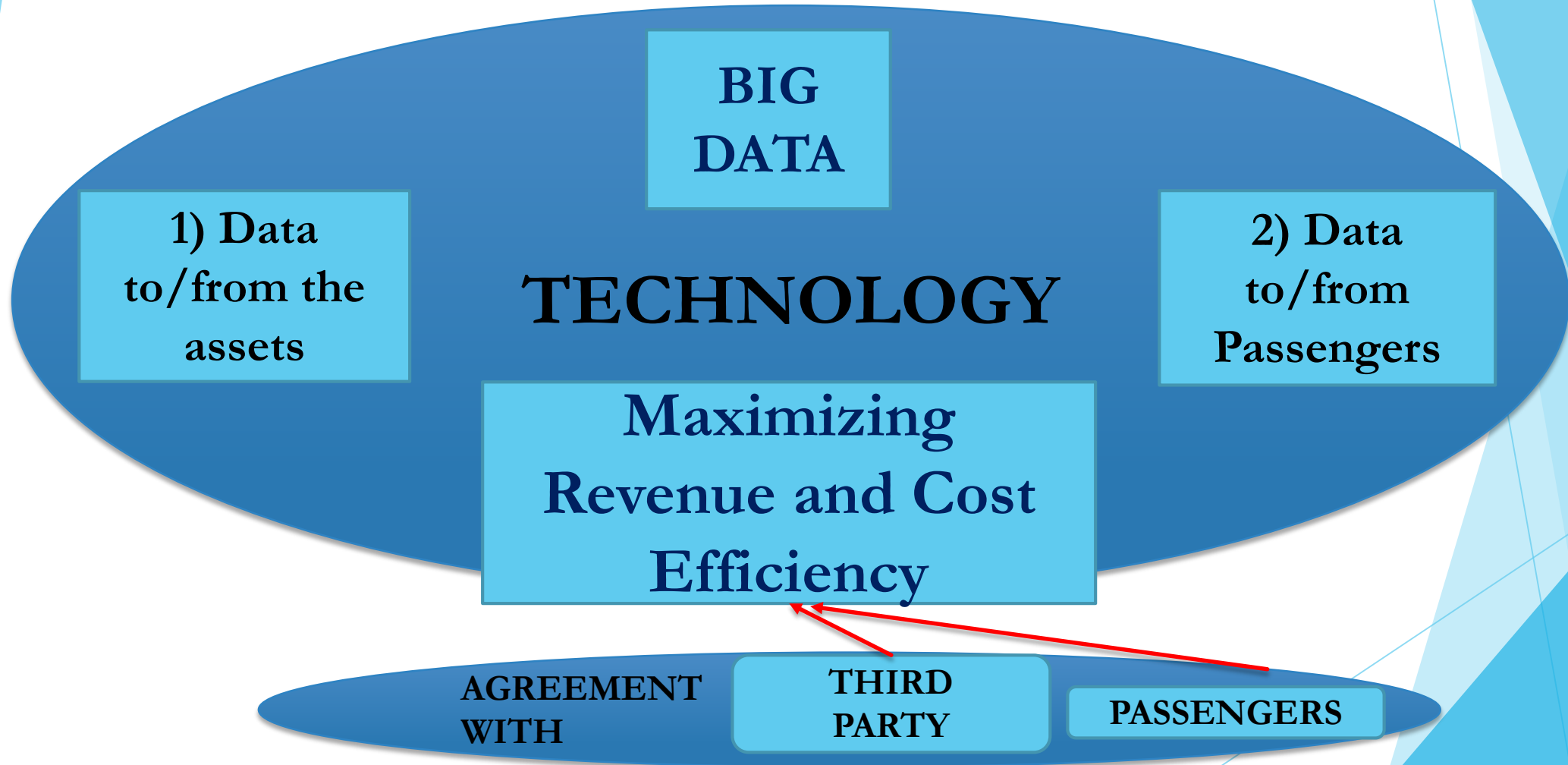➢ More than 16 thousands E-Bus

Urban Mobility – Other options

From Natural Gas   to   Hydrogen fleet

Urban Mobility – Efficiency of Operators

Seamless Urban Mobility

Autonomous E-car

Autonomous E-Bus

Metro Backbone

Sharing Soft Mobility

THANK YOU FOR YOUR ATTENTION

Contact details:

Prof. Dr. Andrea Giuricin

Mob: +393386938369

Email: andrea.giuricin@unimib.it