

INNOVATION DRIVING CHANGE

- · Artificial Intelligence
- Telecommunication
 Grid
- Stringency of Cyber Security Standards
- Capability of Cars
- · Man-machine Dialogue

- . Autonomous Driving
- Energy Storage
- Lightweight Technology
- 3D Printing
- Connectedness of Cars
- · Source of Automot. Innovation





- Competition for Talent
- Importance of Material Wealth
- · Ride Sharing
- · Trust in OEMs
- Pay-per-use Models
- Degree of Customization
- Future Standing of Driving
- Urbanization



STEEP forces



- Infrastructure Spending
- · Data Monetization
- Market Control by New Players
- Sales Channels
- · Buying vs. Leasing
- Place of Production
- Corporate Valuations
- Financing Options
- Shareholder Interest
- Growth in Asian Markets
- Cost of Capital



- · Strength of IP Laws
- Freedom of Trade
- State of Public Transport Infrastructure
- Data Storage



- Polluter Pays Principle
- · Recycling Technology
- Environmental Concern
- Pollutant-free Production
- Alternative Powertrains

CHALLENGES



26% of all vehicles sold by 2030 are expected to be Battery Electric Vehicles



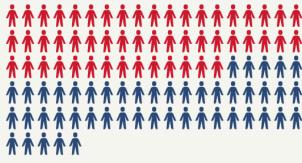
of all vehicles will contain connectivity



of all vehicles will come with level 2 autonomy or higher



Global revenue of autonomous vehicles to reach \$US1.6 trillion



52% of automotive businesses are experiencing a skills shortage (31,143 jobs)



Typical tooling cost for EVs is up to \$77,000 and 10 days of training (above normal requirements)



750,000 vehicles reach end-of-Life each year



