



ENGINEERING DEVELOPMENT BOARD

Compliance to WP-29 Regulations by Pakistan
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AGENDA

- Overview of the Automotive Sector
- Governing Regimes (1987–2031)
- Regulatory Mechanism
- EV Adoption Roadmap
- Adoption of WP-29 Regulations (Summary)
- Challenges

IMPACT - AUTOMOTIVE



World Standing:

- Ranks 34 in 39 global manufacturing countries
- Only 12 countries in Asia, of which Pakistan is one.



Manufacturing Capacity / Capability:

- Approx 100 manufacturing units (25x4 and 75x2/3 wheelers)
- 400+ Auto Parts Vendors
- Installed Capacity of 600,000+ Units/Annum (4-Ws)



Customer Choices:

- 40+ Models, 100+ Variants
- 13 Brands of Passenger Vehicles (Cars, SUVs, 2-3 Wheelers, HCV, LCVs)



Employment:

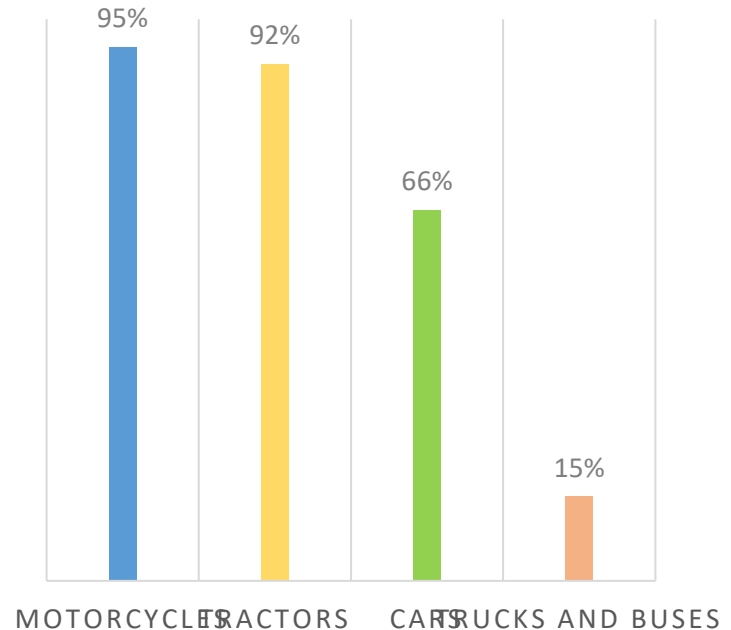
- **200,000** with OEMs
- **500,000** with Vendors



Contribution to Economy:

- 04% contribution to GDP
- 15% of Large Scale Manufacturing Sector
- Local Parts Purchase Volume 250 Billion PKR

LOCALIZATION LEVEL OF PARTS



Source: PAAPAM, ESP, EDB, Industry

Governing Regimes

• Deletion Program or Localization policy	1987-2004
• Tariff Based System (TBS)	2006
• Auto Industry Development Program	2007-2012
• Automotive Development Policy (ADP)	2016-2021
• Auto Industry Development & Export Policy	2021-2026
• Automotive and Part Manufacturing Policy *	2026-2031
• Tractor and Agricultural Implements Policy *	2026- 2031

Pakistan Auto Industry – Regulatory Framework

- Compliance of WP 29 Regulations in Vehicle Manufacturing administered under

SRO 656(I)2006

- Auto Part manufacturers administered under

SRO 655(I)2006

- Localization managed under

SRO 693

Simplification

- **Phase out SROs & Simplify Customs Tariffs. Reduce regulations.**



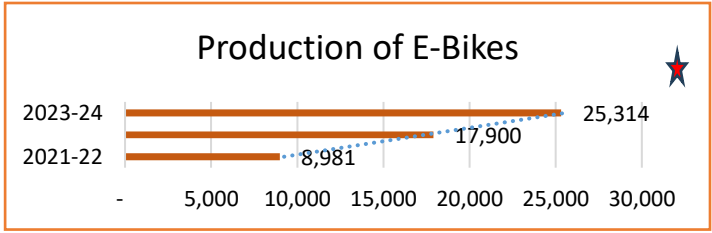
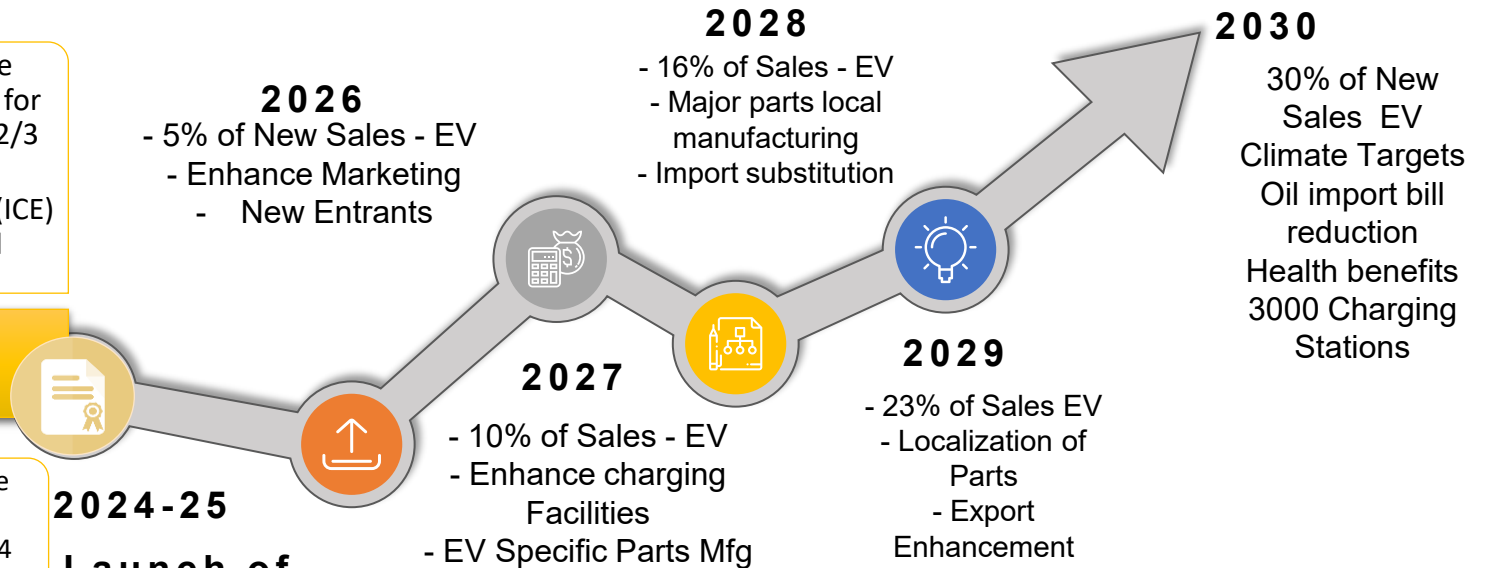
IMPACT & ROAD MAP - EV

- 55 companies have established plants for manufacturing of 2/3 wheelers
- Installed capacity (ICE) per annum 4.0 Mil units

Capacity

- 28 Million Bikes on the road
- 30% of 2/3 wheelers, 4 W, Buses, Trucks, Sales to be electric by 2030
- Avg. Growth Rate in EV adoption is more than 50%

Potential



Adoption of WP-29 Regulations

- ✓ Adopted 17 Core Regulations
- ✓ Targeting 45 Additional Regulations (2027 onwards.)
- ✓ Defining Implementation Mechanism.
- ✓ Executing Phased Adoption of WP-29 additional regulations.
- ✓ Regulating Commercial Used Vehicle Imports.
- ✓ Developing Local Standards as per international regulations/standards.

Selected UNRs: 1958 Agreement

	Description	UN Regulations (UNRs)	Vehicle Category
Active Safety	Brakes	R 13 & R 13H	Passenger Cars and Vans + Commercial Vehicles and Buses
	Steering	R 79	Passenger Cars and Vans + Commercial Vehicles and Buses
	Tyres	R 30	Passenger Cars and Vans
	Lighting	R 48	Passenger Cars and Vans + Commercial Vehicles and Buses
Passive Safety	Safety Belts Anchorages & Safety Belts	R 14 & R16	Passenger Cars and Vans + Commercial Vehicles and Buses
	Seats / Head Restraints	R 17 & R 25	Passenger Cars and Vans
	Collision	R 94, R 95 & R 135	Passenger Cars and Vans
General Safety	Safety Glazing	R 43	Passenger Cars and Vans
	Mirrors & Cameras	R 46	Passenger Cars and Vans + Commercial Vehicles and Buses
	Anti theft	R 18	Passenger Cars and Vans + Commercial Vehicles and Buses

Glance on newly adopted regulations

Visibility, Lighting, and Signaling	R3 Retro-reflecting Devices, R4 Rear Plate Illumination, R19 Front Fog Lamps, R56 Moped Headlamps, R70 Rear Marking Plates, R77 Parking Lamps, R88 2-Wheeler Reflectors, R91 Side-Marker Lamps, R104 Contour Markings, R148 Light-Signaling Devices, R149 Road Illumination Devices.
Structural Integrity and Occupant Protection	R11 Door Latches, R12 Steering Mechanism Impact, R21 Interior Fittings, R22 Protective Helmets, R26 External Projections, R58 Rear Under Run Protection (RUPD), R66 Bus Superstructure Strength, R80 Large Vehicle Seats, R93 Front Under Run Protection (FUPD), R129 Enhanced Child Restraints (i-Size), R137 Frontal Collision Restraints.
Environmental Impact and Dynamic Performance	R9 Noise Emissions, R40 & R47 Gaseous Pollutant Emissions, R51 Sound , R54 Pneumatic Tyres (Commercial), R75 Pneumatic Tyres (Motorcycles), , R142 Installation of Tyres, Emissions, R154 Emissions & Fuel Consumption, R39 Speedometer and Odometer, R78 Braking Systems.
Advanced Propulsion and Specialized Equipment	R100, R136 Electric Power Train Safety, R134, R146 Hydrogen Fuel Cell Vehicles (HFCV), R67, R110, R115 Alternative Fuel Systems (LPG/CNG/LNG), R28 Audible Warning Devices (Horns), R165 Audible Warning Devices (Reversing), R97 Vehicle Alarm Systems (VAS), R36, R52 General Construction (Large Passenger Vehicles), R55 Mechanical Coupling Components.

Challenges

- ✓ Rationalize compliance costs for OEMs and vendors to ensure sustainable adoption of higher safety standards.
- ✓ Strengthen Pre-Shipment Inspection (PSI) and post-shipment compliance for commercial regimes under the Engineering Development Board (EDB).
- ✓ Reliance on overseas testing due to lack of accredited national testing and homologation facilities.
- ✓ Formulation of local standards in line with international standards for ICE/NEV vehicles.
- ✓ Accelerate the adoption of UN WP.29 regulations to align the domestic market with global safety benchmarks.

THANK YOU