

# Korea - ASEAN EV Opportunity



Rolling Stock

- No. 1 MRT in Korea
- Target high-speed rail for next



Product	Korea	Overseas
MRT (Mass Rapid transit)	1,080 Cars	-
LRT (Light rail transit)	228 cars	28 cars
DEMU (diesel-electric multiple unit)	-	16 cars
Total by '23	1308cars	44 cars

Mission

Eco-friendly public transportation

Rail

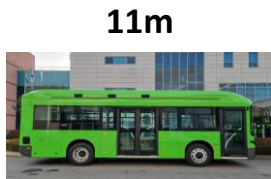


Road



- Established in 1974
- 49 years of longevity

Electric Vehicle



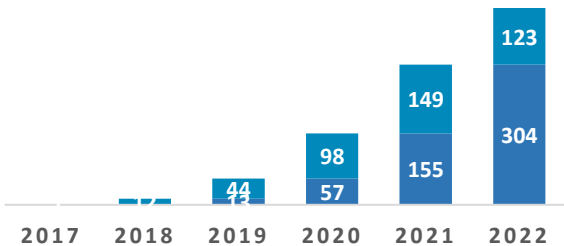
9m



12m

Apollo

Unit : ea



- Pure domestic development technology
- Annual Capacity of 1,000 units

New factory in Gimcheon by 1Q, 2024





Woojin Industrial Systems (Seoul)  
Metrotech Co. Ltd.

Woojin Industrial Systems (HQ, Factory2)  
Woojin Industrial Systems (Jeungpyeong)  
Woojin Electric Machinery/ J-Tech

Electrical Vehicles



Ochang Factory, Electric bus

★ Web: [www.wjis.co.kr](http://www.wjis.co.kr)  
★ Contact: +82 2 2103 8562

Location	Chungbuk, Ochang
Area	39,669 m <sup>2</sup>
Main Product	<b>Electric Bus,</b> AGT Light railways



Headquarters Factory

Establish	1974.04
Location	Chungbuk, South Korea
Area	7,457 m <sup>2</sup>
Main Product	On-board system for railways



2<sup>nd</sup> Factory for Train On-board System

Location	Chungbuk, South Korea
Area	15,672 m <sup>2</sup>
Main Product	On-board systems



Jeungpyeong Factory, R&D

Location	Chungbuk, South Korea
Area	66,000m <sup>2</sup>
Main Product	Railways(EMU, DEMU)

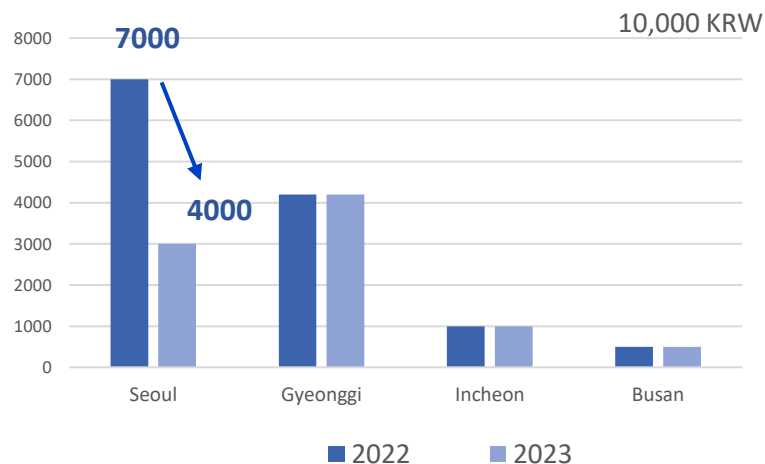


Branch Office in USA

Establish	2011.1.19
Location	United State, CA
Area	On-board systems

## Regulation

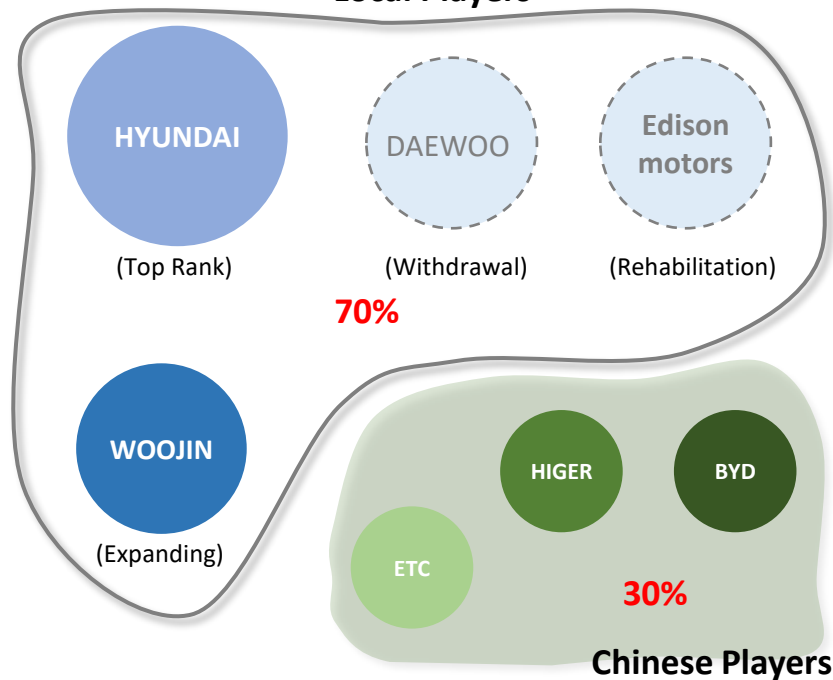
- Subsidy differentiation by region
- Reduced subsidies from local governments



- Government subsidy difference: 30-50% by battery density
- Expansion of the quasi-public management system

## Players

### Local Players



- Price competition between domestic vs. Chinese players
- Preference for domestic players

## GORWING EV MARKET

- Global EV Market Growth

**12% CAGR**

- ASEAN EV Market Growth

**Before Expected 30% CAGR  
→ After COVID 11% CAGR**

- EV Conversion Rate

**< 5%**

- 12M High floor bus (inter-city), 11M Low floor bus (city bus)
- Road condition, Platform is different
- Driving pattern is different (Left handle, Right handle)

## REQUIREMENTS

■ *Requirements through previous contact with India, Bangladesh, Indonesia, and the Philippines etc.*

- **Chassis Provider**

- Product localization through local body builders

- **JOINT VENTURE**

- Establishment of local production system
- Expect technology transfer

- **Low Price**

- High expectations for low price

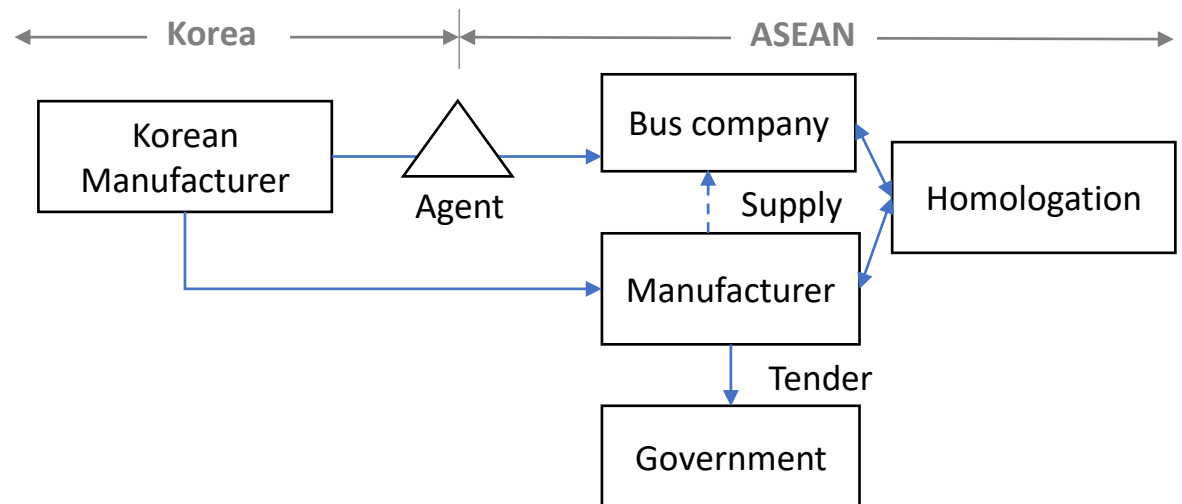
**“ASEAN MARKET SIZE : 5,000~ 8,000 UNITS by 2030”, BIG MARKET AND OPPORTUNITY**

## ISSUES

- **Long Time**
  - Homologation
- **Non-professional Agent**
  - Lack of understanding on EV business and tech-business

## NEEDS for Collaboration

- **Reduction of homologation period: Sharing of Korean results mutually**
  - Korea introduces China's electric bus into Korea (simplifies safety and conformity test report)



- **Introduction of trusted local partners and agents**