Kia Slovakia on the path of Transformation to Electromobility

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Movement that inspires

Automotive industry in Slovakia

› GDP – 10,4% auto industry share on GDP

› 255,000 people directly or indirectly employed by the automotive industry

› 170,000 people directly employed in auto makers and Tier 1 suppliers

Movement that inspires

Emp. 4,200 11,000 4,500 3,800

› 46,5 % share of automotive

Source: ZAP SR

Car Production scale in Slovakia

Source: ZAP SR

Slovakia : 198 cars /1000 inhabitants (2023)

will start 2026~27 (500,000

Hyundai Motor Group

Cars
- Hyundai
- Genesis
- Kia

Parts
- Hyundai MOBIS
- Hyundai Transys
- Hyundai WIA
- Hyundai MSEAT
- Hyundai KEFICO
- Hyundai IHL
- Hyundai PARTECS

Steel
- Hyundai Steel
- Hyundai BNG STEEL
- Hyundai Special Steel

Construction
- Hyundai Engineering & Construction
- Hyundai Engineering
- Hyundai Engineering & Steel Industries
- Hyundai City Corporation

Finance
- Hyundai Capital
- Hyundai Card
- Hyundai Commercial
- Hyundai Motor Securities

Others
- Hyundai GLOVIS
- Hyundai Rotem
- INNOCEAN
- Haevichi Hotel & Resort
- Hyundai AutoEver
- Hyundai NGV
- Hyundai Farm Land & Developm
- GIT
- G-Marine Service

Establishment: 2000

Companies: 56

Employees: 250 000

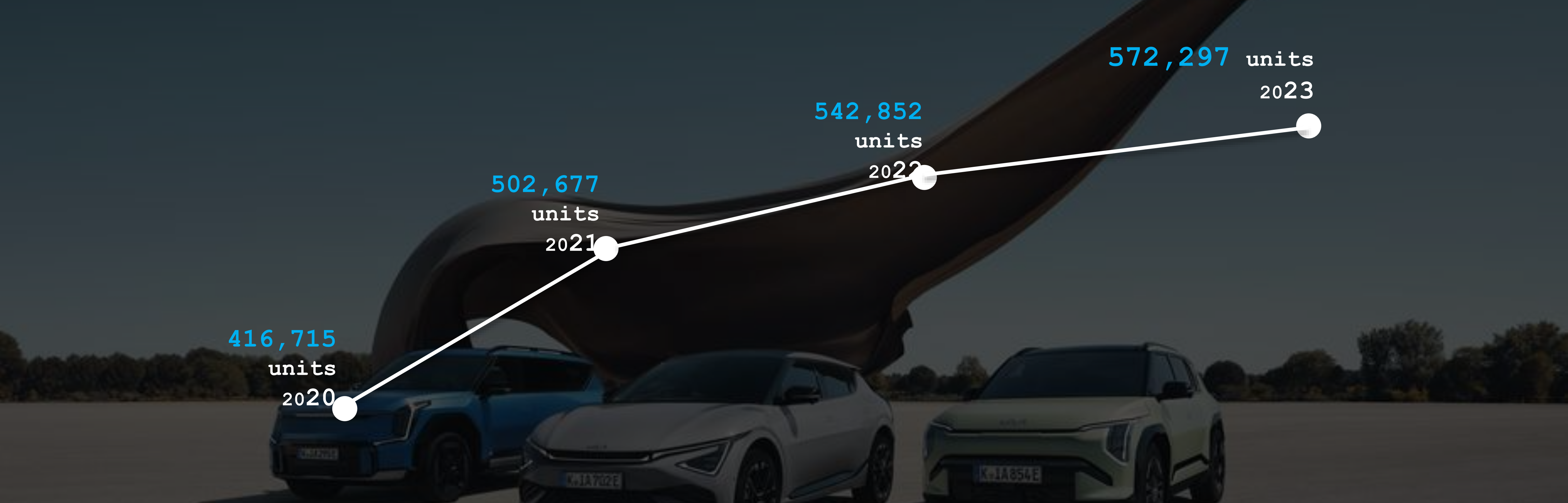
Kia production facilities

Sales 2023: 3,087mil cars

Total capacity:
3,750mil cars

Movement that inspires

Kia in Europe sales performance



- Kia had best year sales performance ever in Europe in 2023,
  5.4% sales increase compared to 2022
- Electrified vehicles accounted for 217,145 units, representing a 9% increase over 2022

Movement that inspires

Kia Slovakia

Employees: 3,800

Capacity: 350,000

Investment: 2.3 billion Euro

Revenue: 8 billion Euro

Area: 192 ha (269 soccer fields)

- Buildings: 28 ha

Products: Sportage, Ceed, engines

60 %

40 % (4 body versions)

Engine1: gasoline 1.5,

diesel 1.6

Engine2: gasoline 1.6

9 basic specifications

Export markets 2023

Europe 87.4%:

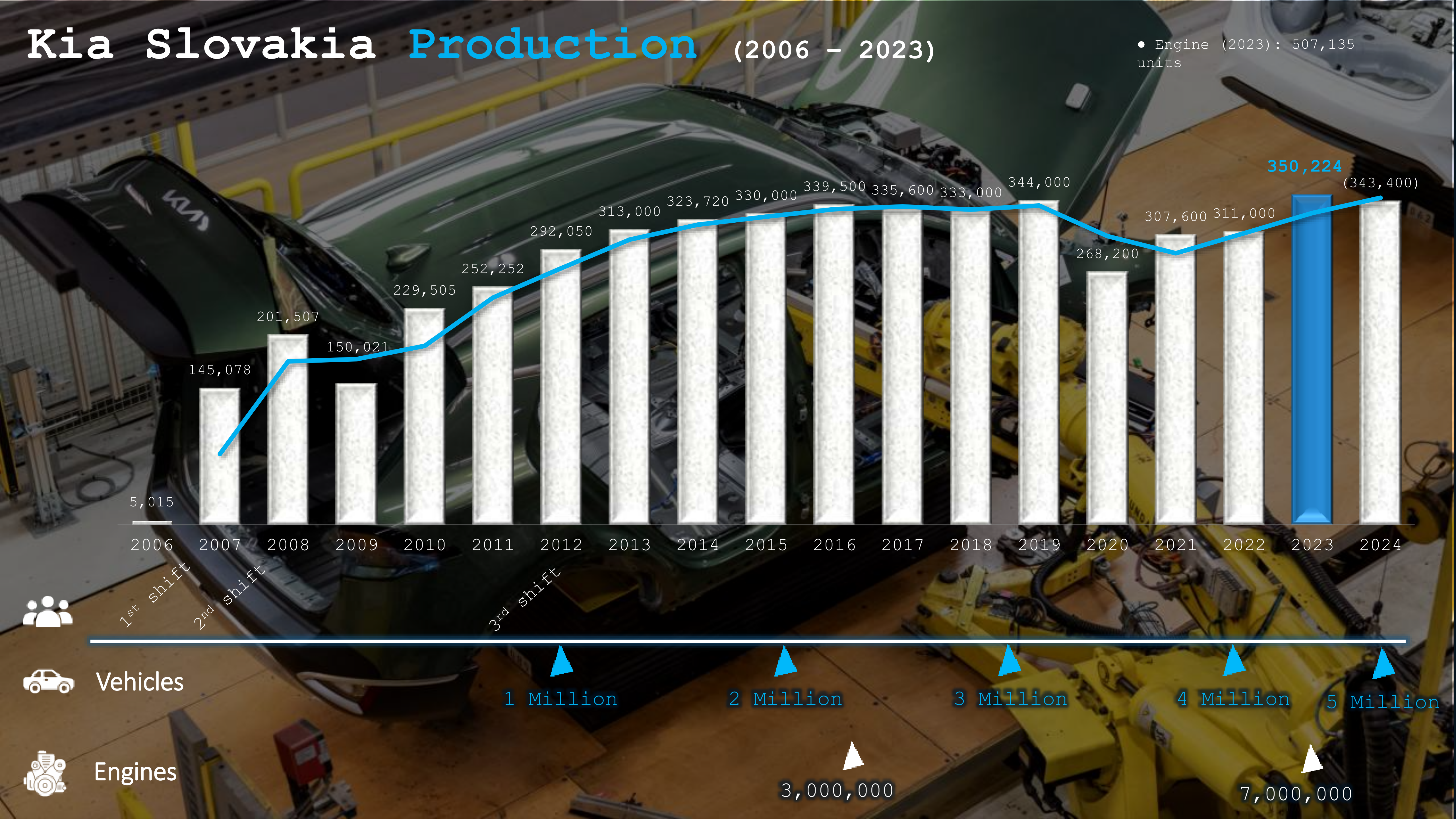
- UK: 16.4%
- Germany: 10.7%
- Spain: 9,5%
- Poland: 7.8%
- Italy: 7.3%
- Slovakia: 2.1%

Others 12.6%

2006 : 14

2013 : 69

2023 : 87 countries


Kia Slovakia Production (2006 – 2023)
• Engine (2023): 507,135 units
5,015
145,078
201,507
150,021
229,505
252,252
292,050
313,000
323,720
330,000
339,500
335,600
333,000
344,000
268,200
307,600
311,000
350,224
(343,400)
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024
1st shift
2nd shift
3rd shift
Vehicles
1 Million
2 Million
3 Million
4 Million
5 Million
Engines
3,000,000
7,000,000

Electrification at Kia Slovakia

Upcoming Electrification at Kia Slovakia

2025
First BEV
produced at
Kia Slovakia

- Euro7

2026
Second BEV
produced at
Kia Slovakia

- Fit for 55 Package (CO_2 standards for vehicles, CBAM and ETS)

2035
ICE BAN in EU
to achieve Green Deal target in 2050

2045
Carbon Neutrality
(Global Kia Group Target)

Decarbonization Pathway

- Product [CO_2 standards for vehicles, recyclable materials and circularity]
- Production [Renewable energies, energy efficiency in plant, low-emission logistics]

> **BEVs will contribute to global target of Kia brand to achieve carbon neutrality by 2045 (electrification to reduce emissions from vehicle use stage)**

> **BEVs will address EU customers demand for electrified vehicles and EU CO_2 targets**

EU CO_2 legislation

… **how to understand**

Vehicle „EU regulations„

CO_2 regulation
(Fuel consumption l/100km)

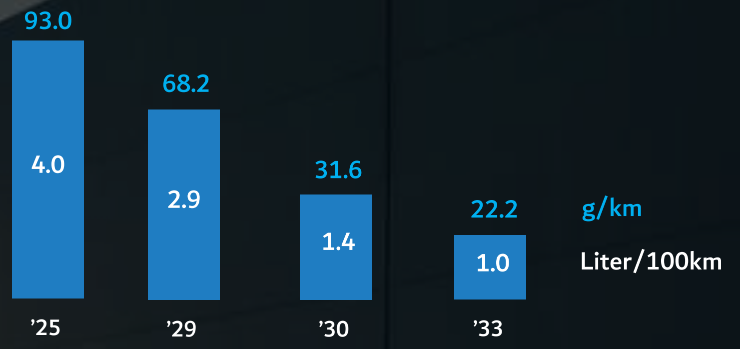
Emission reg.- EU6, EU7
(THC, NOx, CO, NMHC, PM, PN)

❑ EU CO_2 fleet targets for passenger vehicles 2015- 2024:

Year	2015- 2018	2019- 2024
CO_2 limit	130g/km → 5,8l/100km	95g/km → 4.1l/100km

➢ Penalty: 95€ exceed each gram CO_2 /km per vehicle till year 2030
(after 2030 calculation still in development)

❑ Kia CO_2 simulation target scenario (2025- 2033):



❑ Influence on calculation fleet CO_2 for years 2025- 2030:

- calculated Fleet CO_2 in 2021
- number of sold vehicles in year 2021
- averaged test mass manufacturer´s sold vehicles in calendar year
- EU averaged test mass sold vehicles in calendar year
- share of sold low CO_2 vehicles (CO_2 below 50g/km)

„test mass„ - car weight + operation liquedes

❑ Other countries in the world with specific CO_2 targets:

- USA, India, China, South Korea, Brazil, …

From ICE to BEV

01 Car

- Engine
- Starter & Alternator
- Transmission
- Fuel system
- Exhaust system
- 12V battery

↓

- Electric motor
- HV Battery system
- Battery thermal management
- ICCU + charging plug
- High voltage wiring
- Heat pump
- 12V battery

ICCU – Integrated Charge Control Unit (AC/DC management)

02 Production

- Body structure
  (mainly floor, new parts)
- Steel → Al, plastic parts
- One line – ICE, HEV, PHEV, BEV
  (uneven work balance)
- Battery handling (≥ 500kg)
  (assembly, storage, conveyor system)
- Control units modulation

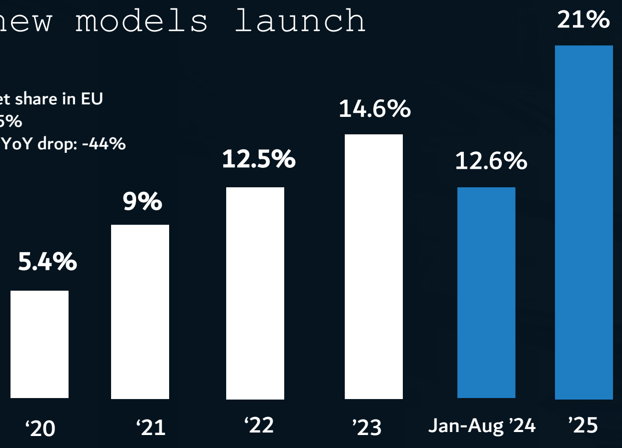
03 Others

- Education & Qualification
  (high voltage, new powertrain system)
- Legislation
  – Battery- logistic, warehouse, enviro., ...)
  – ,,Decarbonization,, reporting
- Safety & cyber Security
- Charging infrastructure

Key Trends in EU BEVs market

01 BEVs market slows down, but prediction for 2025~ remains optimistic due to new models launch

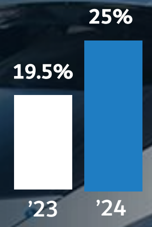
* BEVs market share in EU
* Slovakia: 2,5%
* August '24: YoY drop: -44%



Source: JD Power, ACEA, EU Federation for Transport & Environment

02 Growth of Chinese BEV brands in EU

> Share of China-made BEVs on all EU BEVs registrations



> New plants in EU announced: Spain (Chery), Italy (Dongfeng), Poland (GEELY), Hungary (BYD)

Source: EU Federation for Transport & Environment

03 Factors for higher demand for BEVs

- Lower charging time
- Longer driving range
- Lower price
- Available infrastructure

Source: Boston Consulting Group

04 Rapid growth of charging points in EU is needed

> 2017~2023: BEVs sales 18x vs Charging points only 6x

→ 61% of all points is concentrated in 3 countries (Germany, France, Netherlands)

> Strong correlation between charging points and sales

→ highest BEVs sales similar to countries with most chargers (Germany, France, Netherlands)

> 2030 plan of EU Commission: 3,5 million new points needed

→ it means 400,000 points per year in next 7 years, Slovakia: below EU

Source: ACEA

EV Transition, Sustainibility and Competitiveness

Are policies, existing state of clean tech, access to raw materials, and costs all aligned to maintain success?

01

Transition from ICE to EV

02

Sustainibility

03

Competitiveness

Challenges Ahead:

> To achieve EU Ambitious CO2 targets and related regulations

> To build resilient supply chain with focus on circularity

> To reduce carbon emissions across all stages of automotive life cycle

> To support continual Development and Innovation related to ecological mobility

> To maintain market position by focus on customer, costs effectiveness and productivity


Kia Slovakia | Thank you