

Capstone Project



# Agenda

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Introduction

Brief story of Ford Motor Company Operations

Ford's processes and supply chain

Strategy

Data analysis and overview of its strategy

Conclusion

Improvements and recommendations

# 1 Introduction

Brief story of Ford Motor
Company



# Ford Motor Company





#### Vision

"To become the world's most trusted company, designing smart vehicles for a smart world"





## Mission

"To help build a better world, where every person is free to move and pursue their dreams."

1903-1919

Foundation and Industrial Revolution

1920-1960

Expansion and

Diversification

1960-2008

Challenges and

**Financial Crisis** 

2009-2025

- o 1903: Ford Motor Company founded in Dearborn, Michigan by Henry Ford and 11 investors.
- o 1908: Launch of the Model T, the first affordable car for the masses.
- o 1911: First U.S. branch assembly plant (Kansas City, Missouri) and first overseas plant (Manchester, England).
- o 1913: Introduction of the moving assembly line, revolutionizing manufacturing.
- o 1914: "Fordism" spreads globally; \$5/day wage introduced to incentivize productivity and support the middle class.

1903-1919

Foundation and Industrial Revolution

1920-1960

Expansion and Diversification

1960-2008

Challenges and Financial Crisis

2009-2025

- o 1922: Acquisition of Lincoln Motor Company (luxury vehicles).
- Late 1920s: Over 20 overseas assembly plants established.
- o 1938: Launch of Mercury brand (mid-priced vehicles).
- o 1942: Shift to military production during World War II (vehicles, planes, tanks).
- o Late 1950s: Launch of the Edsel, a commercial failure.

1903-1919

Foundation and

**Industrial Revolution** 

1920-1960

Expansion and

Diversification

1960-2008

Challenges and

**Financial Crisis** 

2009-2025

- o 1973–74: OPEC Oil Crisis leads to demand for fuel-efficient cars.
- o 1980s–1990s: Focus on fuel efficiency and innovation to counter foreign competition.
- o Late 1990s: Start of shift toward environmentally sustainable and smart vehicles.
- o 2008: Great Recession hits; Ford avoids bankruptcy and declines TARP bailout.
- o Ford sells off acquisitions to stay afloat.

1903-1919

Foundation and

**Industrial Revolution** 

1920-1960

Expansion and

Diversification

1960-2008

Challenges and

**Financial Crisis** 

2009-2025

- o 2009: Gains market share due to "cash-for-clunkers" program.
- o 2018: Decision to phase out most passenger cars, focusing on trucks, SUVs, and crossovers.
- o 2020: Commitment to \$50B electrification strategy through 2026.
- o Goal: Zero carbon footprint by 2050.
- o 2025 Market Share: Ford ranks 7th globally, with gains in Europe but losses in Asia.

# 2 Operations

Ford's processes and supply chain



# Overview of Operations



Focus on efficiency, innovation, and sustainability



Integration of digital technologies and smart mobility



Global presence in over 125 countries.

# Operations





- Assembly line
- Lean manufacturing principles
- Advanced centers



#### Management

- Continuous improvement
- Customer satisfaction
- Vehicle financing and operations



#### Innovation

- Use of AI, machine learning, and robotics
- Innovation Labs



#### Sustainability

- Use of recycled materials
- Carbon footprint reduction

# Supply Chain – The Ford City in Brazil



# Supply Chain

Global sourcing from Americas, Asia, and Europe.

1,400+ Tier 1 suppliers.

Supplier Code of Conduct

Main components:

body panels, engines, electronics.

Main materials:

carbon fiber, aluminum, steel.













# Supply Chain

### Challenges

- Rising raw material costs
- Semiconductor chip shortages
- Tariffs and cost of production
- Delays in product launches

### Risks

- Natural disasters
- Cargo theft
- Environmental and fuel alternatives
- Economic disruptions and cut of governmental funding

#### **Political**

Government support
Trade agreements

#### **Economic**

Growth in emerging markets

Threat of US dollar (exporting)

#### Social

Ford Credit
Increase in wealth gap

### Technological

Smart tech integration Limited charging points

### **Environmental**

Rising demand for EVs and hybrid Low carbon trend

### Legal

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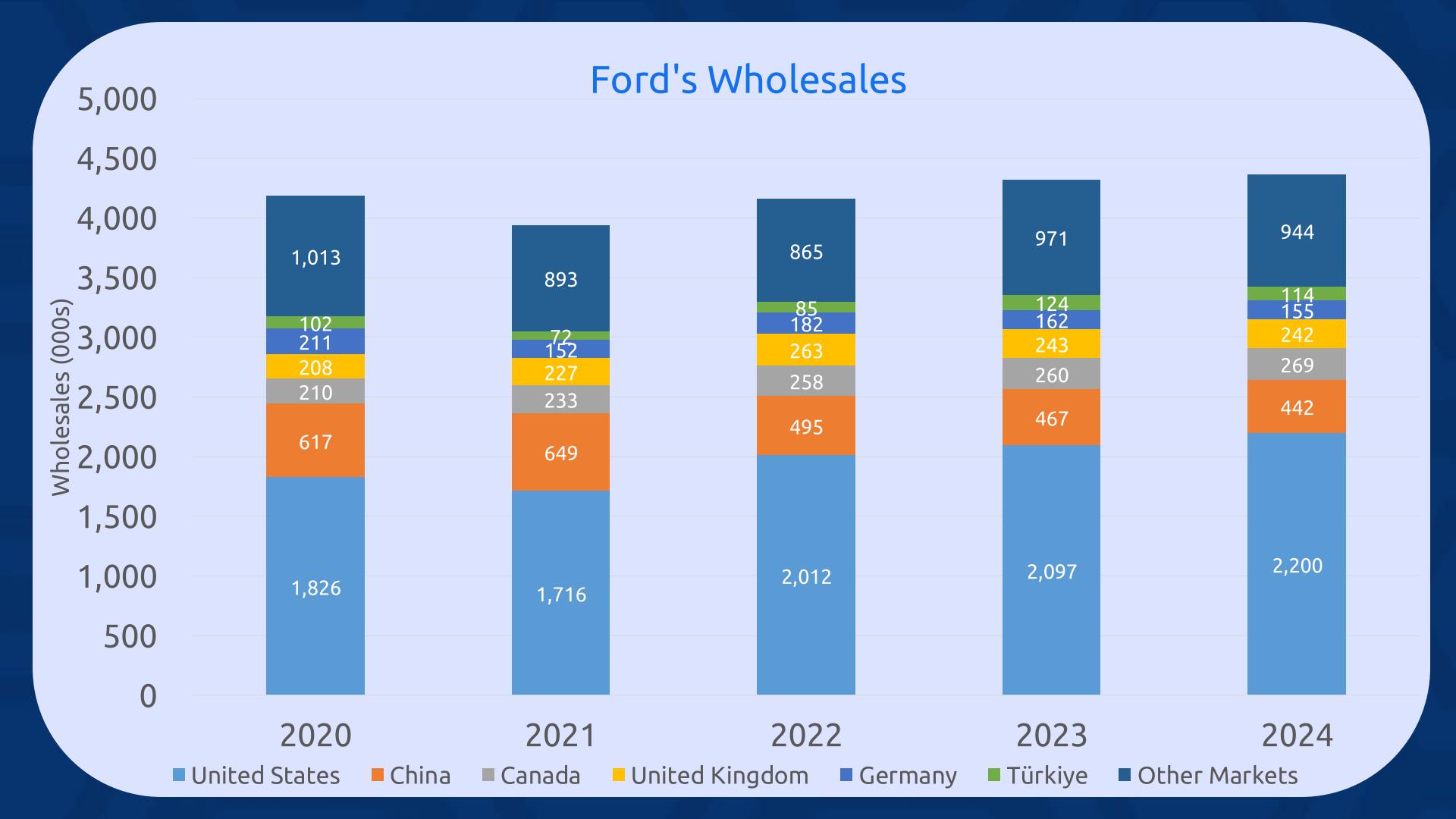
Rising demand for EVs and hybrid Low carbon trend

### Legal

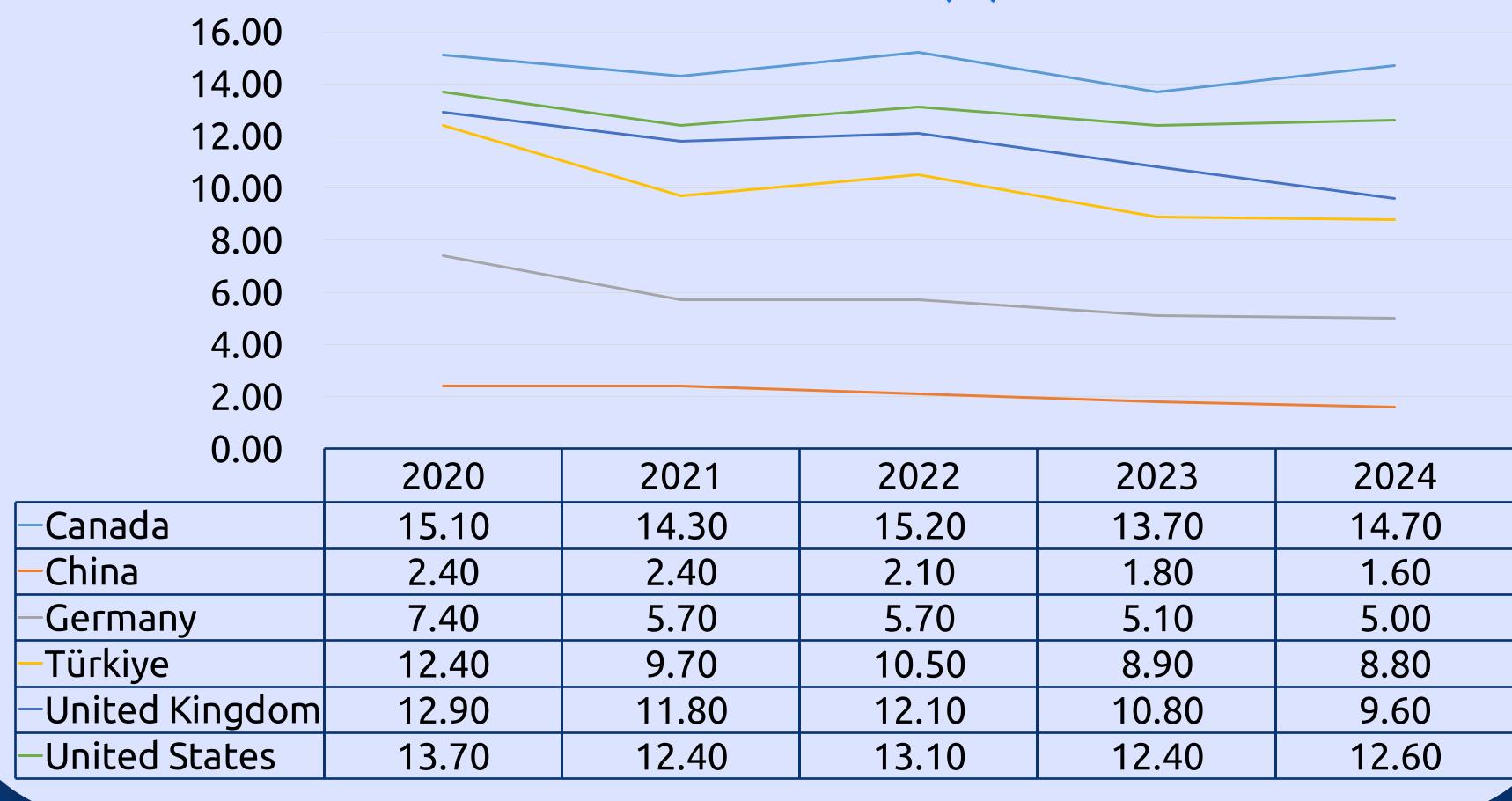
# 3 Strategy

Data analysis and overview of its strategy

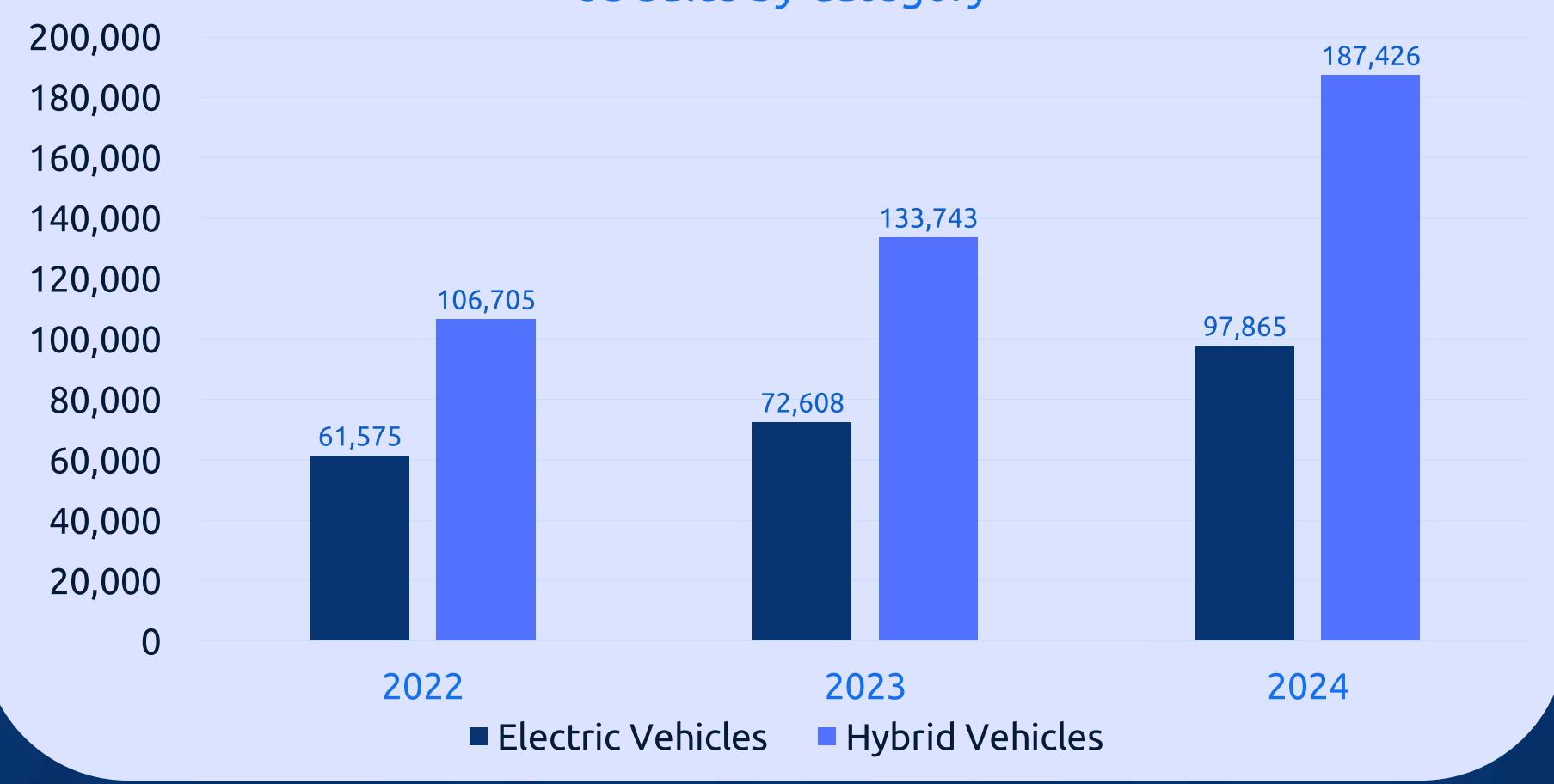




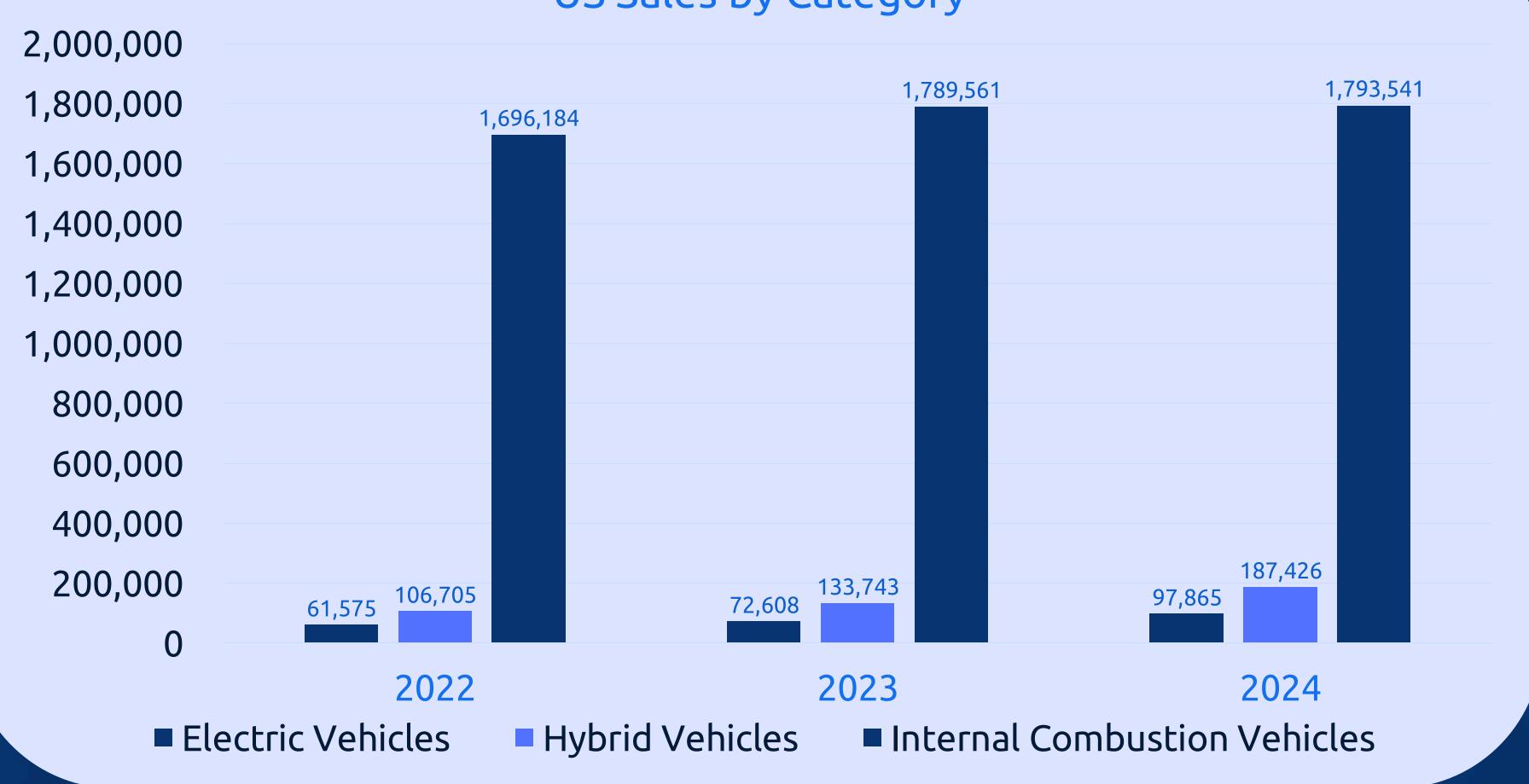
### Ford's Market Share (%)

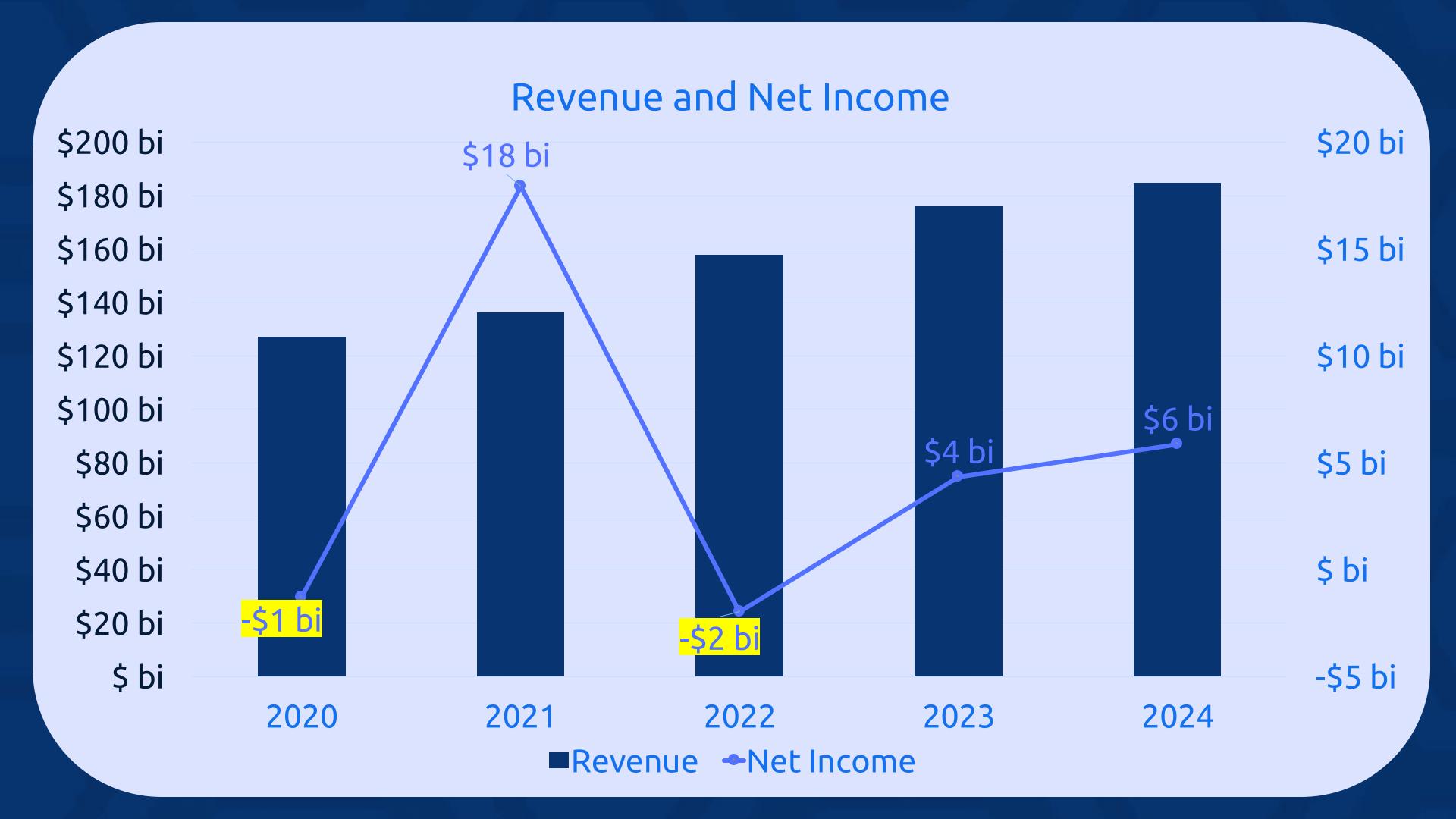


### US Sales by Category



## US Sales by Category





## Recent News

#### 1.Massive Recall: 312,000+ Vehicles Affected (June 2025)

- Models: F-150, Expedition, Bronco, Navigator
- Issue: Faulty Electronic Brake Booster (EBB)
- Fix: Over-the-air update + dealer servicing

#### 2. \$800M Tariff Hit Triggers Quarterly Loss (July 2025)

- Q2 2025: Ford's first net loss since 2022
- Cause: U.S. tariffs on imported materials
- Expected impact: \$3B tariff burden for 2025



# 4 Conclusion

Improvements and recommendations



# Improvements



Implemented over-the-air (OTA) software updates



Canceled the overbudget FNV4 EV platform





Restructured
European operations



## Recommendations

Diversify critical material sourcing

Redesign EV platform strategy with modular architecture

Strengthen quality control to reduce recall

Expand regional manufacturing to mitigate tariffs

Accelerate sustainable sourcing and recycling efforts

Improve supply chain visibility using digital tools



# Thank you

The floor is open to questions