




# Overview of Global EV Market Growth

The market for electric vehicles has been increasing steadily due to their eco-friendliness and low maintenance cost. Let's take a closer look at the global EV market growth.

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# EV Sales



## Increased Sales

Electric vehicle sales reached a record high in 2020 with 3 million units sold globally, marking a significant 43% YoY increase.



## Declining ICE Sales

On the other hand, sales of internal combustion engine (ICE) vehicles have been declining globally, as people become more aware of their negative environmental impact.



## Infrastructure Growth

To cater to the growing demand, governments and private organizations are investing in EV infrastructure, such as charging stations, which in turn is driving EV sales globally.

# Environmental Impact

## Reduced CO2 Emissions

Electric vehicles emit 54% fewer greenhouse gas emissions compared to gasoline vehicles, thereby reducing the carbon footprint.

## Battery Recycling

Even though batteries are a hindrance to environment, many EV manufacturers have initiated battery recycling programs that extract valuable materials to create new batteries and reduce the environmental impact.

## Increased Sustainability

EVs can leverage renewable energy sources such as solar and wind power to charge up, reducing the dependence on non-renewable sources, making it a sustainable transportation option.

# EV Affordability

## Manufacturing Cost Reductions

As the demand for EVs rises, manufacturers are optimizing their production process by implementing lean and flexible manufacturing systems to reduce overall costs.

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## Battery Cost Reductions

Battery cost is the biggest cost component of an EV. However, with time, these costs are dropping and are expected to come down to as low as \$60-\$80 per kWh in the near term.

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## Incentives and Rebates

Many governments offer tax incentives and purchase rebates to consumers who purchase EVs, making them more accessible and affordable.

# EV Battery Technology



## Longer Range

With advancements in battery technology, newer EVs are offering longer ranges, making them an attractive option for long-distance travel, thereby increasing sales.



## Improved Performance

Battery technology has also improved the performance of EVs, with some models rivalling the power and speed of traditional gasoline-powered cars.



## Faster Charging

Newer charging technologies like fast charging and wireless charging are making it even more convenient for EV owners, thereby increasing their confidence in these vehicles.

# EV Market Share

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## Increasing Market Share

The market share of EVs as a percentage of total vehicles sold has increased from 2.5% in 2019 to 4.2% in 2020.

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## Global Dominance

China remains the largest market for EVs with a 41% market share, followed by Europe at 28%, and the United States at 24%.

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## Future Prospects

Many analysis predict that EV market share is expected to grow exponentially over the next decade.

# Challenges to Overcome

## Charging Infrastructure

Although EV infrastructure is improving, many cities and countries still lack charging stations, which may deter EV adoption.

Governments and private organizations need to continue investing in charging infrastructure to address this issue.

## Distance Travel

EVs still have limited range compared to internal combustion engine vehicles, which may hinder long-distance travel.

Battery technology advancements and the deployment of charging infrastructure along highways could alleviate this challenge.

## High Costs

The high upfront cost of EVs continues to be a deterrent for prospective buyers.

Manufacturing cost savings and governmental incentives and rebates are key enablers of EV affordability and adoption.

# The Road Ahead

## Huge Potential

As governments around the world look to curb carbon emissions, the stage is set for EVs to become a dominant mode of transportation in the future.

## Collaboration and Partnership

Collaboration amongst governments and private organizations is needed to drive EV adoption.

## Consumer Education

Consumers need to be educated on the benefits of EVs and how they can positively impact their day-to-day lives.