

Capture EV growth in APAC to accelerate e-mobility



How can your electric vehicle (EV) business meet the demand for e-mobility in Asia-Pacific (APAC)?

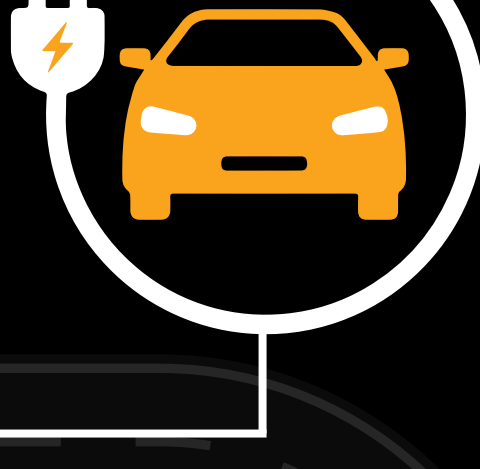
The global landscape

Governments and consumers are eager to combat climate change, and green mobility plays a big part in making that happen:

From 2021 to 2022 alone, there was a

50%

increase in EV sales.¹



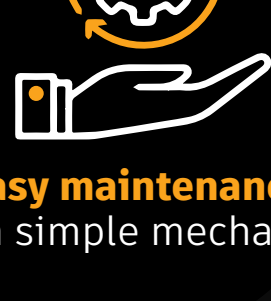
The benefits of going green



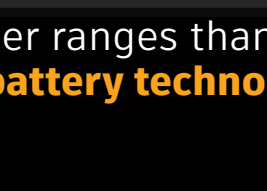
Government incentives



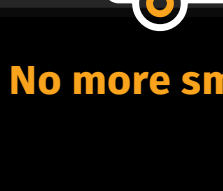
No fuel needed: lower operating costs



Easy maintenance with simple mechanics



Longer ranges thanks to new battery technologies



No more smog

The APAC opportunity



For EV companies, the benefits above show there are plenty of opportunities to grow. This is especially true in APAC:

China is currently the world's largest EV market, followed closely by

Japan and **South Korea**.

SOUTH KOREA

20 million EVs to be developed in South Korea to reach their 2050 net-zero goal.³

CHINA

About

50%

of two- and three-wheelers sold in China were battery-powered in 2021.²

INDIA

30% of all private cars and 80% of all two and three-wheelers sold in India are set to be electric by 2030.⁵

THAILAND

79%

of EVs sold in Southeast Asia in the first quarter of 2023 were sold in Thailand.⁴

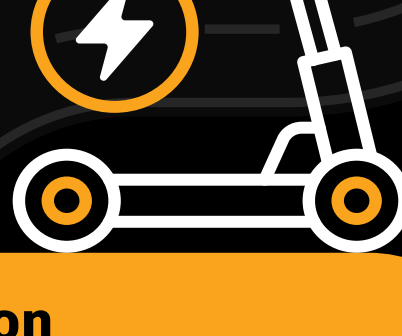
SINGAPORE

By 2025,

Singapore will no longer allow the registration of diesel-powered cars and taxis.⁶

Key challenges

Despite the huge opportunity for EV manufacturers in APAC, there are still several key challenges to overcome.



Higher competition

Both legacy automakers and new entrants are investing in APAC's EV sector, leading to increased competition.



Changing customer demands

Consumers—especially eco-conscious millennials and Gen Z—are increasingly looking for custom EVs that suit their lifestyle and personality.



Sustainability regulations

EV companies need to embrace sustainable business practices and meet government carbon neutrality regulations to maintain credibility.



Supply chain disruptions

Making EV batteries involves a complex supply chain with several raw materials. As demand increases, prices could go up. We may also see material shortages.



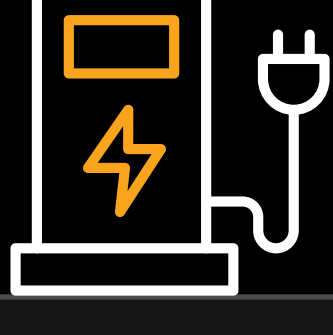
Infrastructure requirements

Large-scale EV adoption requires a reliable, widespread network of charging infrastructure. This presents a significant upfront investment.



How to meet EV demand

Advanced digital solutions and partnership schemes can help you overcome your biggest roadblocks.



Gain a competitive edge

Reduce time to market and increase market share.

How to do this

- Streamline cross-functional collaboration through a single source of truth to improve design efficiency
- Quickly develop innovative designs through product simulation for superior performance, longer driving ranges, and more.

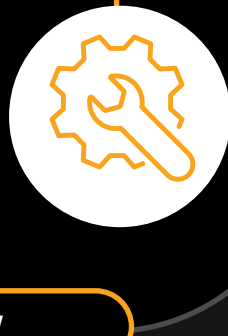


Customize at scale

Lean into flexible manufacturing to enable customization and personalization at scale.

How to do this

- Creating digital representations of your production facilities and equipment before building the real thing can improve operational efficiency.
- Configure complex product offerings based on customer preferences using generative design to ensure efficiency and accuracy



Measure sustainability

Determine the impact of every product to meet energy and emission standards.

How to do this

- Prioritize data to ensure your teams can gain insights into sustainability bottlenecks and identify environmental inefficiencies.
- Reduce waste as well as your use of non-biodegradable materials through product simulation.



Improve supply chain visibility

Ensure ethical sourcing and better prepare for material shortages.

How to do this

- Regularly review your production material sources, especially for critical components like batteries.
- Switch to a cloud-based, digital manufacturing workflow to keep track of your entire supply chain and develop ways to mitigate risks.



Develop the right infrastructure

Expand the charging network so better infrastructure is in place.

How to do this

- Work closely with government agencies and other relevant parties to plan, fund and build more charging stations.



Key Takeaways for EV leaders

1

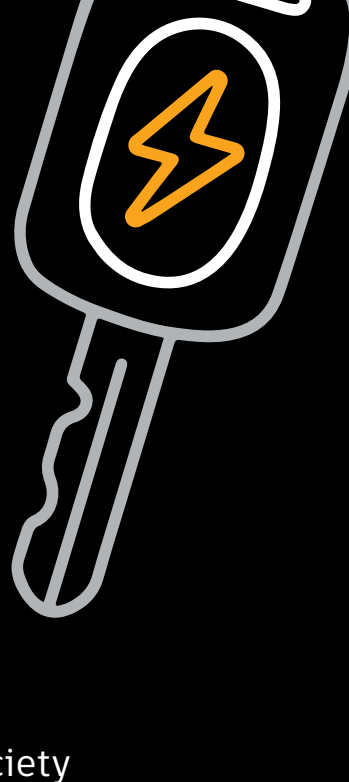
Digital EV designs can significantly improve your efficiency, save costs, and accelerate time to market. All without expensive physical prototypes.

2

Pay close attention to EV consumers' needs. In a competitive market, customization and personalization are key to standing out from the crowd.

3

You can't just talk the talk. As society shifts to a more eco-friendly world, EV manufacturers need to show they're reducing waste and adopting green practices.



Want to learn more?

Read Autodesk's new e-book *Overcoming barriers to accelerate EV transformation in APAC*.

1 Electric vehicles 14 per cent of global new car sales, but less than 4 per cent in Australia: IEA, ABC News, Apr 2023
2 https://www.economist.com/business/2023/09/14/electric-two-wheelers-are-creating-a-buzz-in-asia
3 Electric car plans for 2050 'net-zero' goal, Iea, Feb 2022
4 Chinese automakers sold 75% of EVs in Southeast Asia in first quarter, study says, Reuters, Jul 2023
5 https://earth.org/singapore-will-ban-new-diesel-cars-taxis-from-2025
6 https://timesofindia.indiatimes.com/blogs/voices/vision-of-electric-vehicle-industry-by-2030/
7 https://www.trade.gov/market-intelligence/japan-transition-electric-vehicles