jama
Japan Automobile Manufacturers Association

VISION 2035

Summary

Background and Purpose of JAMA Vision 2035

The automobile industry is at present undergoing an unprecedented transformation, said to occur once in a century. It must address and resolve numerous challenges, including those posed by carbon neutrality and by CASE (connected, autonomous, shared and services, electrified) technologies. JAMA has been working on a wide range of initiatives focused on the future, including the “seven challenges” for the automotive industry which it has been promulgating, with cooperation not only from traditional automobile industry stakeholders but also from stakeholders from many other industries and from government. However, since those seven challenges were identified as such in 2023, changes in circumstances, including with regard to the environment, have been accelerating. This document therefore takes a fresh look at the issues facing the auto industry as it aims to become a mobility industry—a goal which is outlined here, along with the pathways to reach it—to promote greater understanding and support in regard to those issues based on a “big picture” societal perspective.

This vision for the world of 2035 is premised on the projection that significant progress will be achieved in regard to multiple issues, including the seven challenges referred to herein, through the promotion of carbon neutrality based on a multiple-pathway approach and the creation of new value made possible by advances in digital technology. JAMA envisions that in the years leading up to 2035, ***automobiles will evolve as an integral part of a broader mobility framework; progress will be made in solving diverse issues ranging from global-scale challenges to those unique to specific countries and regions; new value will be created, sustaining and enhancing Japan’s industrial competitiveness; and mobility will become a factor that enriches people's lives and provides exciting user experiences.***

To make this vision for the world a reality, further collaboration is necessary, not only among automobile industry partners but also with government, other industries, startups, and the younger generations who will lead the future. The automobile industry will assume its responsibilities in working towards a better society. We hope to move forward together with the many partners with whom achieving the goal of a mobility industry centered on societal welfare and consumers, as depicted in this vision, resonates.

Contents

Achievements and contributions of the automobile industry, built in partnership with society

- An unprecedented period of transformation
- Initiatives being advanced by the entire industry
- A **sense of crisis** that advances made so far do not ensure future sustainability

- **Envisioning the future** beyond the crisis
- Supporting industrial competitiveness while providing exciting options for users

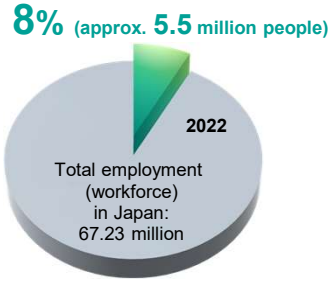
Challenges to work on together with other industries and government to make the future vision a reality

Story

An Industry Moving Forward with the Contributions of 5.5 Million People

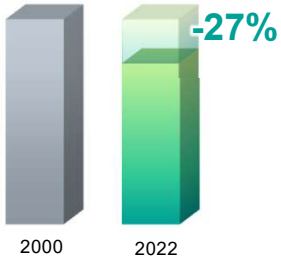
The Automobile Industry in the Context of Japan's Economy

- Automakers **collaborated with various industries** to **create Japan's automobile industry**.
- The automobile industry together with related industries are **leaders in terms of their economic ripple effects** and **employ 5.5 million people nationwide**.
- Automobile plants are located in **26 out of Japan's 47 prefectures**, making them a crucial presence for **regional economies**.
- In 2020 **domestic gross production of transport equipment stood at approx. 13.9 trillion yen**. **Transport equipment continues to maintain a trade surplus**, contributing to the trade balance.



Enhancing Lives and Livelihoods

- By supplying **a broad range of vehicle types**—including passenger cars, commercial vehicles, mini vehicles, motorcycles, and special-purpose vehicles—as well as **MaaS** and automated driving technologies, the industry **creates new value and enhances daily life**.
- Being a world leader in the development of fuel-efficient technologies and electrified vehicles, the industry has made it possible for Japan's road transport sector to **achieve significant reductions in CO_2 emissions**, and it **continues to implement proactive emissions-reduction measures on an ongoing basis**.

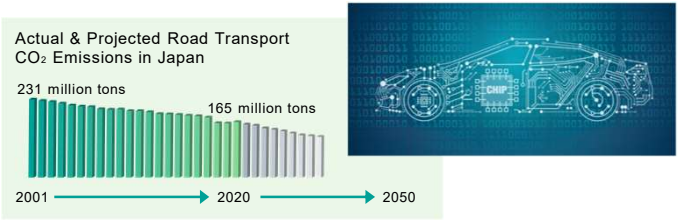


Road transport CO_2 emissions in Japan, 2022/2000

Changing Circumstances and Related Automobile Industry Initiatives

The Situation Surrounding the Automobile Industry

- The automobile industry is undergoing a **once-in-a-century transformation**, advancing efforts to tackle new challenges such as **carbon neutrality and CASE technologies**.

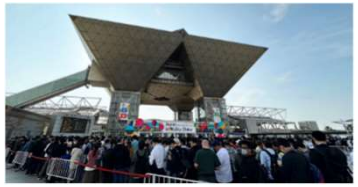


To address these new challenges, **JAMA and its members have been introducing new initiatives since 2020.**

- Recent examples of initiatives by JAMA and JAMA member companies to address carbon neutrality include the promotion of the multiple-pathway approach to its achievement and the conduct of specific awareness-raising activities including exhibits (e.g., at the G7 Summit in Hiroshima) and focus-group presentations by experts, etc.

- Japan's automobile industry recognizes the need to **transition from its traditional role to a mobility industry**. Moving forward, it plans to place **society and consumers at the center**, **collaborating with more industries and government agencies** so that the mobility industry can **take the lead in creating value and solving issues** through an optimized, comprehensive approach.

Japan Mobility Show



- With an increasing number of issues that the automobile industry alone cannot address, it is essential to engage in activities that address the full mobility perspective. JAMA has identified **seven principal challenges**, based on urgency and ripple effects, **to be pursued as top priorities by the industry** in order to **continue to contribute to Japan's economy and society as a key industry**. The public and private sectors must work together to address these priorities.

Seven Challenges for the Automotive Industry

1. Enhancing value and efficiency in logistics, commerce, and mobility
2. Infrastructure development for the proliferation of electrified vehicles
3. International competitiveness of domestic batteries and semiconductors
4. Stable procurement of critical resources to ensure resilient supply chains
5. Trade policy to promote domestic investment
6. Competitive green energy
7. Facilitating cross-industry data collaboration and component traceability

Changing Circumstances and Related Automobile Industry Initiatives

Challenges and Pressing Issues for the Next 10 Years

Infrastructure-Related Issues

- An insufficient number of charging stations prevents the widespread use of electrified vehicles.
- To achieve carbon neutrality and a circular economy for resources, collaboration with local communities and government agencies is necessary.
- The transition to carbon neutrality imposes both initial and operational cost burdens on small and medium-sized logistics operators, impacting their business viability.

Digital Issues

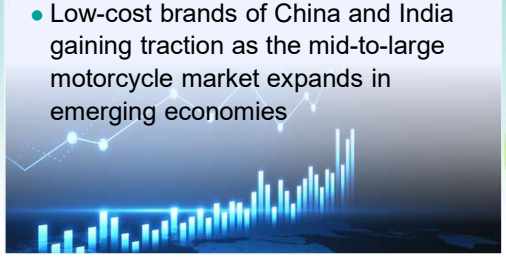
- How to respond to the rapid development pace of emerging Chinese enterprises
- How to establish a software platform for mobility
- How to resolve the increased difficulty in securing human resources, including software specialists, to address automobile digitalization

Supply Chain Issues

- Ensuring procurement capabilities and resource circulation for key materials and components essential for SDVs, including semiconductors
- Concerns about the stable procurement in Japan, a country with limited natural resources, of rare metals and other materials used in automobile batteries and other products
- In Japan, with its small available land area, the development of renewable energy sources is geographically limited. Japan faces greater difficulties in this regard compared to the U.S., China, and Europe.

Global Issues

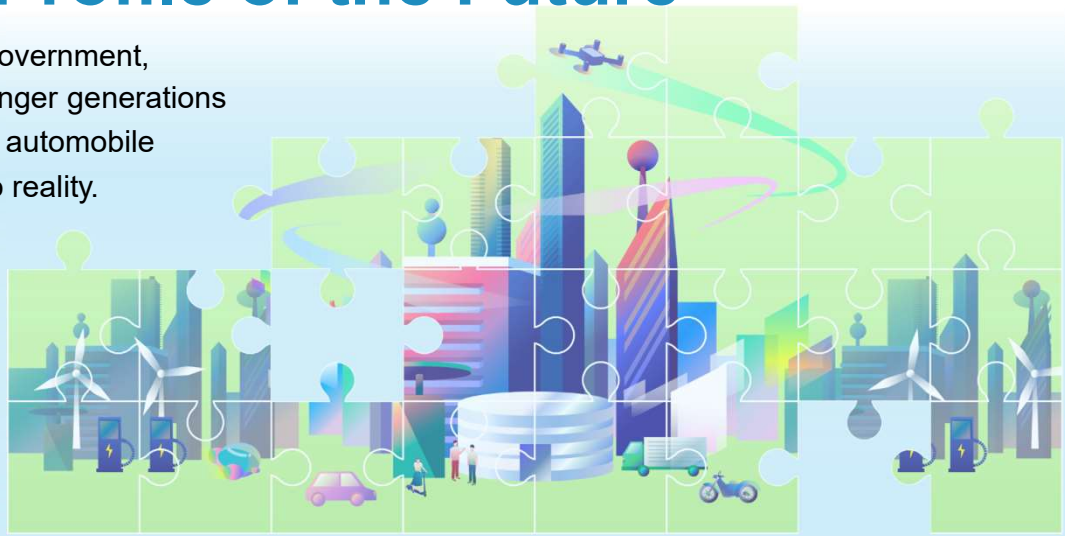
- Rising cost of compliance with rapidly tightening regulatory levels in various countries for emissions, fuel efficiency, etc.
- Rise of protectionist policies in the U.S., China, Europe, etc. and preferential treatment for domestically manufactured EVs
- Chinese automakers increasing their competitiveness, backed by strong government support and high domestic uptake of BEVs
- Low-cost brands of China and India gaining traction as the mid-to-large motorcycle market expands in emerging economies



JAMA has drawn up its **Vision 2035: A Profile of the Future** as a blueprint for the future that will emerge after the “seven challenges” and other pressing issues are addressed.

Vision 2035: A Profile of the Future

By fostering **co-creation** with the government, other industries, startups, and the younger generations who will lead the future, the Japanese automobile industry will work to bring this vision to reality.



Promoting Carbon Neutrality through a Multi-Pathway Approach

Mobility-Supporting Infrastructural Development

Providing the requisite physical infrastructure for various types of clean-energy and electrified vehicles enables the widespread adoption of diverse mobility options.

Resilient Supply Chains and the Creation of a Circular Economy

A stable procurement system for critical resources, raw materials and components, along with a circular system for battery-related resources, will reinforce Japan's manufacturing foundation.

Automobiles will integrate into a broader mobility framework, with mobility becoming a factor that **enriches people's lives** and **provides exciting user experiences**, through advances based on co-creation.

This transformation will contribute to the **sustainability** of the global environment and local communities while **maintaining and strengthening Japan's industrial competitiveness**.

Creating New Value through Digital Technology

Solving Societal Issues

Diversified mobility supports transportation and logistics infrastructure essential for sustainable regional development.

Evolution of the User Experience

The proliferation of software-defined vehicles (SDVs) will enhance the user experience and contribute to economic revitalization.

Pathways to the Future (Overview)

Together with the 5.5 million people employed in the automobile and auto-related industries, JAMA and its member companies will work to advance ongoing initiatives. As new challenges arise in an expanded framework beyond our industry, we aim to make the vision for 2035 a reality, through collaboration and partnerships with the government, other industries, and startups.

Promoting Carbon Neutrality through a Multi-Pathway Approach

Mobility-Supporting Infrastructural Development

Resilient Supply Chains and the Creation of a Circular Economy

Creating New Value through Digital Technology

Solving Societal Issues

Evolution of the User Experience

Government

- Policy formulation and leadership in various strategies, plans, and medium- to long-term roadmaps
- Timely and necessary rule-making, including legal frameworks and systems design
- Various forms of support such as incentives, investment, and research & development assistance
- Trade policies and international standardization efforts to foster a free and fair environment and respond to globalization

Mobility Industry

Other Industries

- Establishment of clean-energy supply infrastructure and mobility systems
- Utilization of mobility in energy management (e.g., V2X)
- Diversification of resource procurement and processing
- Development of digital infrastructure and promotion of cross-industry data collaboration (e.g., auto parts traceability)
- Creation of circular systems that transcend industry boundaries
- Development of essential technologies for automated driving
- Development of digital infrastructure and promotion of cross-industry data collaboration (automated driving and logistics optimization)
- Acceleration of co-creation and collaboration with various industries to drive business innovation through digital technology

Automobile Industry

- Development and supply of a wide range of mobility options and powertrains
- Enhancement of charging and refuelling infrastructure
- Expansion of areas of cooperation among automakers for key components (e.g., standardization of battery and semiconductor specifications)
- Provision of automated driving services and vehicles
- Development of infrastructure-coordinated systems
- SDV adaptation for a diversified range of vehicles
- Standardization and unification of key technologies and systems (vehicle API, vehicle OS, etc.)

Automobile Industry Automakers, parts suppliers, etc.

Other Industries Energy industry, semiconductor industry, software industry, etc.