



**eMobility  
Expo**  
WORLD CONGRESS

# I Barometer of Sustainable Mobility in Europe 2026



# Introduction

The mobility industry in Europe faces a crucial scenario for its evolution, with challenges that define its future. The sector must accelerate its transition towards cleaner and more efficient models, with electrification, hydrogen, and sustainable fuels emerging as the main solutions.

However, there are still barriers related to infrastructure, costs, and market adaptation capacity that must be overcome to meet sustainability objectives. This is why it will be key for industry stakeholders to collaborate to overcome current barriers and accelerate the transition towards a more sustainable and efficient model.

With the aim of assessing the state of the industry in the current context, eMobility Expo World Congress - MOW 2026 has produced the **I Barometer of Sustainable Mobility in Europe**, a study that analyzes the challenges and progress in autonomous, electrified, sustainable, connected, and safe mobility, based on the opinions of thousands of executives and professionals from all key sectors of the industry: from vehicle manufacturers, shared mobility services, and public transport operators, to navigation and connectivity software companies, providers of new energy sources such as green hydrogen, battery manufacturers and energy storage solution providers, as well as urban mobility companies.

# Introduction

eMobility Expo World Congress - MOW 2026 presents the I Barometer of Sustainable Mobility in Europe, a comprehensive study analyzing the challenges and advances in autonomous, electrified, sustainable, connected, and safe mobility.

This report is based on the opinions of thousands of executives and professionals from all key industry sectors: vehicle manufacturers, shared mobility services, public transport operators, navigation and connectivity software companies, green hydrogen providers, battery and energy storage solution manufacturers, and urban mobility companies.

The goal is to evaluate the current state of the industry and identify the main trends shaping the future of sustainable transportation in Europe.



# Report Highlights

**I- EMISSION REDUCTION: ELECTRIFICATION AS  
MAIN SOLUTION**

**II- HYDROGEN AS EMERGING ENERGY  
ALTERNATIVE**

**III- THE FUTURE MOBILITY MODEL**





# I- Emission Reduction: Electrification as the Main Solution

**75% of respondents consider emission reduction very important for the mobility sector**



# EMISSION REDUCTION: ELECTRIFICATION AS THE MAIN SOLUTION

The transition toward cleaner mobility drives sustainability and opens up new business and competitiveness opportunities for industry players that manage to adapt efficiently to this new regulatory framework; in fact, **75%** of respondents consider it very important for the mobility sector to reduce its emissions.

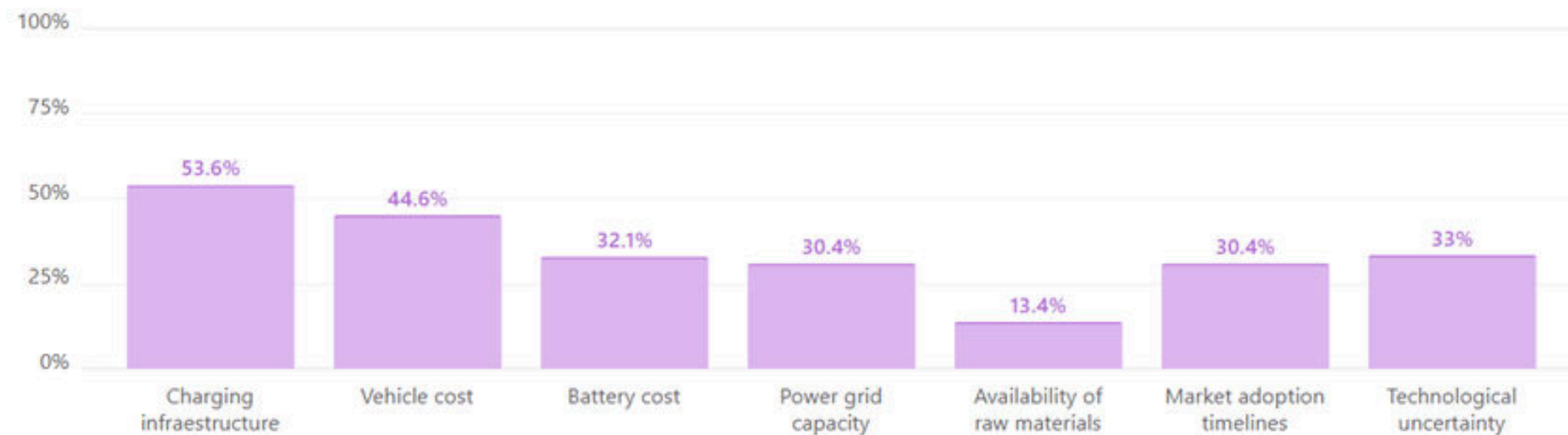
This objective is reflected in the widespread belief that electrification is the key to accelerating sustainability in the sector. **70%** of professionals agree that **electrification**, followed by artificial intelligence (**42%**) and hydrogen (**41.1%**), are the main solutions to achieve this progress.

However, there is no clear consensus among respondents on whether the EU's target of a 90% reduction in emissions from combustion vehicles is achievable by 2035. This highlights the complexity of the transition and the need for continued collaboration across the industry.

# Main Challenges of Electrification

According to respondents, electrification is emerging as the main solution for the decarbonization of mobility. However, there are still certain barriers that hinder its large-scale deployment in the coming years:

5 What would you say are the main barriers to full electrification?



# 1. Charging Infrastructure: A Critical Barrier


**53.6%** of professionals in the sector consider charging infrastructure to be one of the main obstacles to full electrification, highlighting that although the industry is advancing in the production of electric vehicles, the lack of an adequate charging network remains one of its key challenges. Without a widespread and accessible charging infrastructure, the adoption of electric vehicles is limited, especially in rural or peripheral areas where coverage is still insufficient. In this regard, the need for fast-charging points and the integration of smart charging technologies that optimize the use of the electrical grid become essential to ensure that electrification is viable both in urban and interurban contexts.

Similarly, 76% of respondents agree that more than half of the infrastructure needed to fully support electric mobility still has yet to be developed. This figure underscores the scale of investment still required to ensure a smooth transition toward a fully electrified vehicle fleet. The creation of an interconnected, high-capacity network of charging stations is vital to facilitate the everyday use of electric vehicles and to raise awareness among consumers and businesses about the viability of this technology.

## 2. Vehicle and Battery Costs

The cost of electric vehicles remains a significant barrier, according to **44.6%** of respondents. Despite advances in technology and efforts to reduce prices, the initial cost of electric vehicles remains higher than traditional combustion vehicles. Although this difference is being significantly reduced, it still hinders the transition, especially for consumers who do not have access to government incentives or are not willing to assume the higher cost at this time.

Beyond vehicle costs, battery prices are identified as a limiting factor by **32.1%** of industry professionals, reflecting the importance of this component in the economic viability of electric vehicles. Batteries represent a significant portion of the price of electric vehicles, and their cost remains a challenge for mass adoption. Although battery prices are expected to continue declining as technology matures and production increases, the impact of current costs remains relevant.



**44.6%** of professionals cite vehicle costs as a major barrier to electrification adoption.

# 3. Electrical Grid Capacity

Electrical grid capacity is identified as a significant barrier by **30.4%** of industry professionals. As electric vehicle market penetration grows, the electrical grid must adapt rapidly to avoid overloads and ensure that the electricity needed for vehicle charging is available efficiently.

This challenge refers not only to generation capacity, but also to distribution and charging station infrastructure, especially in rural areas or urban zones with high demand. For the transition to electric mobility to be successful, the electrical grid must be capable of managing the additional load in a stable and sustainable manner.





Implementation of clean technologies is slower than anticipated due to technological uncertainty and transition complexity.

# 4. Adoption Timelines

**30.4%** of respondents identify adoption timelines as a key challenge in the transition to electrification and other sustainable mobility technologies. Although faster adoption was expected, the implementation of clean technologies is proving slower than anticipated, delaying progress toward fully sustainable mobility.

This phenomenon is largely due to technological uncertainty and the complexity of the transition, which involves changes in infrastructure, production processes, consumer habits, and market dynamics. Companies, especially SMEs, must adapt to new technologies, which may require substantial investments and time to implement sustainable models.

This demonstrates that, despite technological advances, mass transition will be a gradual process requiring time for all industry stakeholders to adapt.

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# II- Hydrogen as an Emerging Energy Alternative



**72.4% of professionals consider hydrogen a viable  
alternative to traditional fuel**

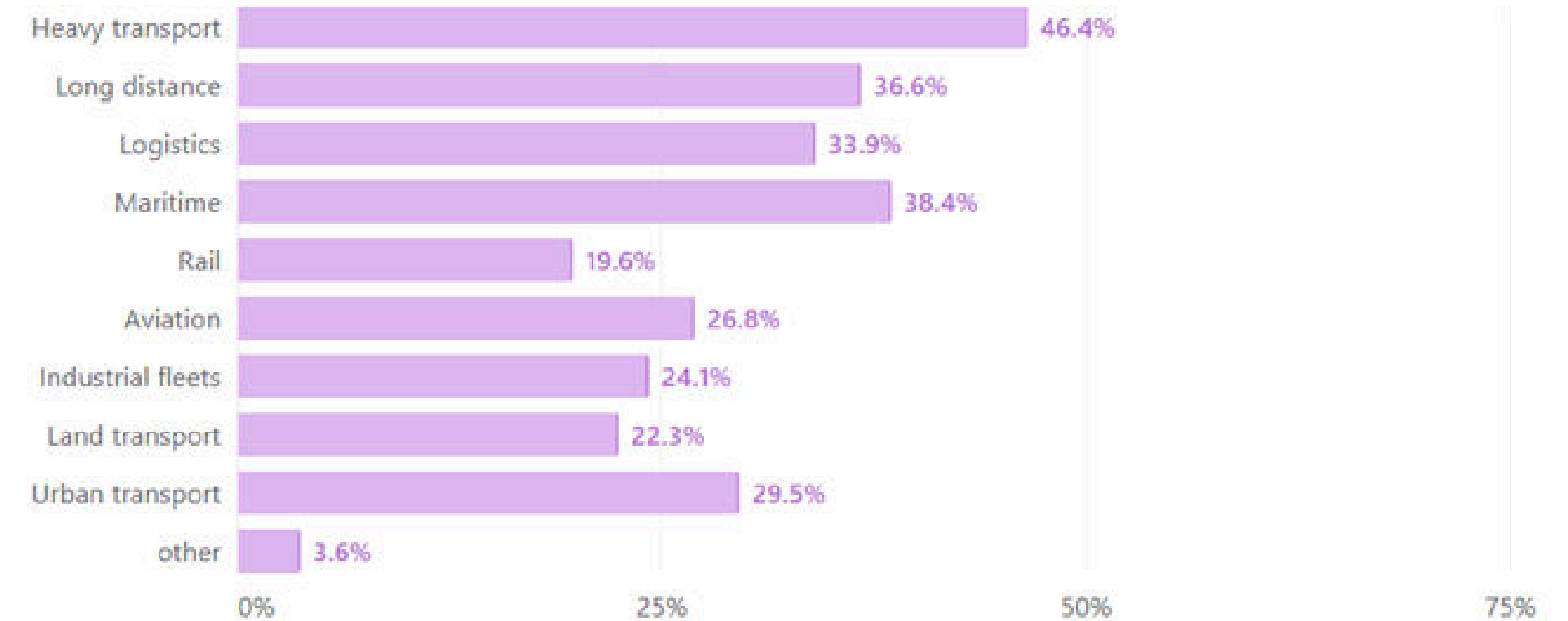
# 72.4%

of professionals believe that hydrogen can become a viable alternative to traditional fuels across various modes of transport, providing a practical solution in cases where electrification falls short.

This transition could transform sectors such as heavy transport, maritime, and long-distance transport, where the potential for implementation is considerable. However, hydrogen faces significant barriers, particularly in terms of infrastructure and production costs.

## Hydrogen by Sectors

8 Which segments do you think have the greatest potential for hydrogen?





# Hydrogen by Sectors



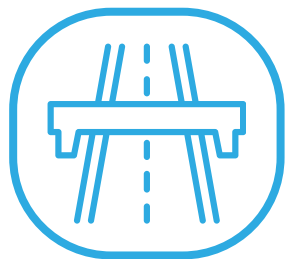
# Hydrogen by Sector



## 1 - Heavy Transport

Hydrogen is emerging as a viable energy solution, especially in sectors that require large amounts of energy to operate. **46.4%** of respondents believe that the **heavy transport** sector has high potential for implementing this technology, which could radically transform fleets of trucks and heavy-duty vehicles.

This sector, which has historically relied on fossil fuels, is facing a critical transition. The adoption of hydrogen could not only reduce CO<sub>2</sub> emissions in one of the most polluting areas of the transport industry, but also transform fleets, making them more efficient and aligned with global climate goals.



## 2 - Long-Distance Transport

Additionally, **36.6%** of professionals see hydrogen as a viable solution for **long-distance transport**, particularly on intercity and transnational routes, where current electric solutions face limitations due to battery range. Hydrogen could be the ideal solution, as it offers higher energy density, allowing vehicles to travel long distances without the need for frequent charging stops. This approach is especially important for sectors such as international freight transport, where efficiency and autonomy are crucial.

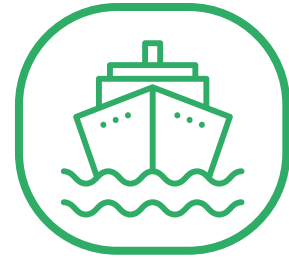


## 3 - Logistics

Hydrogen could also facilitate a smoother transition in the global logistics chain, enabling a significant reduction in emissions from heavy-duty and long-distance transport. In fact, **33.9%** of professionals believe it can help improve the efficiency and sustainability of operations. In this regard, delivery vehicle fleets, especially in urban environments, could adapt to hybrid solutions or fully hydrogen-powered systems, helping to reduce emissions in high-density areas.



# Hydrogen by Sector



## 4 - Maritime Transport

This outlook is further reinforced by growing interest in the **maritime industry**, with **38.4%** of respondents identifying strong potential for hydrogen implementation in ships and other vessels, which could benefit from a cleaner and more efficient fuel. Given the high energy demand of maritime transport, hydrogen stands out as an attractive option due to its higher energy density compared to electricity.

Hydrogen could improve the operational efficiency of ships by allowing them to operate for long periods with a significant reduction in CO<sub>2</sub> emissions, which is especially relevant on international routes.



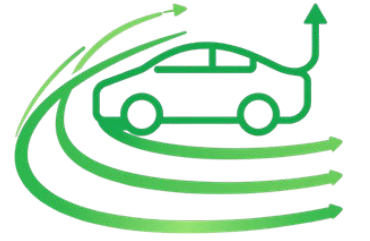
## 5 - Urban transport

**29.5%** of respondents believe that hydrogen has strong potential in urban transport, where eco-friendly alternatives are being sought to address pollution issues and traffic congestion. The implementation of hydrogen in these sectors would not only help reduce the carbon footprint, but also contribute to the decarbonization of the most energy-intensive sectors.

# Barriers to the implementation of hydrogen in transport

Although hydrogen is seen as a promising solution, it also faces significant challenges. 51.8% of respondents indicate that lack of infrastructure is the main barrier to its implementation. Additionally, 50.9% highlight the high cost of production, and 48.2% consider that the technology is not yet mature enough for mass adoption.

Barrier	Description	Impact Level
Lack of Infrastructure	Insufficient hydrogen refueling stations and distribution networks	51.8% of respondents identify this as the main barrier
High Production Cost	Expensive production processes limit commercial viability	50.9% highlight cost as a significant obstacle
Technology Immaturity	Current technology not ready for mass market adoption	48.2% consider technology not sufficiently mature



# III- The Future Mobility Model

**What will mobility look like in 2040?**

# The Future Mobility Model

**46.4%**

predict multi-technological  
model including e-fuels

**24.1%**

predict predominantly  
electric mobility

According to **46.4%** of respondents, the predominant mobility model in 2040 will be multi-technology, incorporating a combination of various solutions, including sustainable fuels or e-fuels. This vision reflects a trend toward technological diversification, where reliance will not be placed on a single energy source, but rather on complementary solutions that can be adapted to the needs of different sectors and types of transport. E-fuels, for example, are seen as an interesting alternative for existing combustion-engine vehicles, particularly in sectors such as aviation and heavy transport, where full electrification may not be feasible in the short term. The use of multiple technologies could facilitate a smoother transition toward sustainable mobility, optimizing the use of available infrastructure and resources.

On the other hand, **24.1%** of respondents predict that future mobility will be predominantly electric, highlighting the growing acceptance of electrification as the main pathway to reducing transport emissions. However, only **17%** of professionals believe that the model will be based on a combination of hydrogen and electrification, suggesting that there is still considerable resistance to adopting a mixed approach. This highlights the need to raise awareness within the industry about the advantages of a hybrid model, which could maximize the benefits of both technologies.

Thus, while electrification is seen as the ideal solution for light and urban vehicles, hydrogen could be the most suitable option for long-distance and heavy-duty transport, sectors where range and refuelling times are critical. The adoption of a mixed approach would not only address the diversity of needs within the sector, but could also accelerate the decarbonization process across different fronts, offering more flexible solutions adapted to the capabilities of each technology.



# Key Takeaways

The sustainable mobility barometer reveals clear pathways for the industry's future, with electrification and hydrogen emerging as complementary solutions.

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**Electrification** 70% of professionals identify electrification as the primary solution for decarbonization.

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**Hydrogen** 72.4% see hydrogen as viable for heavy transport, maritime, and long-distance sectors.

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**Multi-Tech Future** 46.4% predict a multi-technological model by 2040, combining e-fuels, electric, and hydrogen.

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