

CLEAN FUEL INFRASTRUCTURE IN ITALY

Opportunities for foreign
companies on the Italian
market



EXECUTIVE SUMMARY

Italy's transition to clean fuels in the transport sector offers significant opportunities for foreign technology companies and investors. Despite ranking as Europe's fifth-largest road freight market, the country struggles with inadequate clean fuel infrastructure for heavy-duty vehicles. While initiatives like the National Energy and Climate Plan (NECP) and the PNRR have recognized and distributed subsidies for bio-LNG, hydrogen, and EV projects, implementation remains uneven, presenting clear opportunities for foreign investment. Both domestic and international players are stepping in to fill these gaps, signaling a growing market for clean fuel solutions. This white paper provides key insights, highlights infrastructure gaps, and offers a first insight on potential strategies to capitalize on Italy's clean energy transition.



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INTRODUCTION

Italy stands at a crossroads in its effort to decarbonize the transport sector, which generates 27% of national emissions. This white paper explores the status of the road freight industry in Italy, specifically the emerging market trends and key regulatory challenges in the alternative fuel industry. Readers will gain insights into the state of clean fuel adoption, overall fleet development and practical recommendations for market entry.

Our understanding of the Italian market and expertise in connecting international businesses enable us to navigate foreign companies in this complex environment. If you need more information or are curious about our approach, feel free to reach out to us at proaxxes@proaxxes.com



TRANSPORT SECTOR ITALY

Italy's transport sector is heavily reliant on road freight, which accounts for over 87% of inland freight movement. However, the supporting infrastructure for alternative fuels remains underdeveloped, particularly for heavy-duty vehicles. While Italy ranks fifth in Europe for road freight volume, its North-South division and aging road network present significant challenges.

Fleet in Italy

	2018	2019	2020	2021	2022
Cars	39.018.170	39.545.232	39.717.874	39.822.723	40.213.061
Vans	4.108.520	4.172.982	4.260.610	4.318.840	4.403.430
Trucks	941.994	946.393	949.967	960.284	969.488
Buses	100.042	100.149	99.883	100.199	100.014
Total	44.168.726	44.764.756	45.028.334	45.202.046	45.685.993

Age of Fleet

	Cars	Vans	Trucks	Buses
Average Age	12,5	14,7	19,1	14,5

Fuel service stations Italy: information

Italy hosts Europe’s largest network of fuel stations, with over 23,000 facilities across the country. Despite this extensive infrastructure, the transition to clean fuels has been uneven. Most stations still cater predominantly to traditional fuels, although a growing number are incorporating EV charging points and alternative fuels such as bio-LNG and hydrogen. This shift is often concentrated along major highways and near urban centers, driven by both private investments and public subsidies.

Clean fuel adoption is growing, with limited but promising developments in bio-LNG, hydrogen, and renewable diesel, but the penetration of electric heavy-duty vehicles remains very minimal. For the consumer automobile industry, as elsewhere in Europe, the electrification trend is stronger.

Fuel Source & Electric Driving in Italy

	Petrol	Diesel	Batt. Electric	Plug-in Hybrid	Hybrid Electric	Natural Gases	LPG	Other	Unknown	Total
Cars	44,00%	42,10%	0,40%	0,00%	3,90%	2,40%	7,20%	0,00%	0,00%	100,00%
Vans	4,80%	90,30%	0,30%	0,00%	0,00%	0,70%	0,20%	0,10%	0,10%	99,90%
Trucks	0,70%	98,20%	0,00%	0,00%	0,00%	0,70%	0,20%	0,10%	0,10%	100,00%
Buses	0,40%	92,70%	0,80%	0,00%	0,40%	5,40%	0,20%	0,10%	0,00%	100,00%





SUBSIDIES AND INCENTIVES

Government initiatives such as Italy's National Energy and Climate Plan (NECP) and the PNRR (National Recovery and Resilience Plan) have allocated significant funding to decarbonize transport. These include subsidies for electric vehicle (EV) charging infrastructure, bio-LNG development, and hydrogen refueling stations.

However, implementation challenges and a fragmented policy landscape have slowed progress. For instance, while Italy's public EV charging network grew by over 30% in 2023, high-speed infrastructure remains insufficient along key freight routes.

EMERGING PLAYERS IN THE ALTERNATIVE FUEL MARKET

The alternative fuel market in Italy is rapidly expanding, attracting a diverse array of domestic and international players. Established energy companies like ENI and Edison NEXT are investing heavily in bio-LNG and hydrogen infrastructure, while new entrants bring innovative technologies and business models to the table. International stakeholders are increasingly collaborating with local firms to navigate regulatory complexities and access government incentives. Despite this growth, the market remains fragmented, offering ample room for competition and new partnerships. This dynamic environment underscores the importance of strategic positioning and informed decision-making for successful market entry.

OPPORTUNITIES FOR FOREIGN COMPANIES

Foreign companies can obtain an important role in Italy's clean fuel transition by addressing infrastructure shortages and collaborating with local stakeholders. Key opportunities lie in establishing bio-LNG and hydrogen refueling stations along the TEN-T corridors and at major logistics hubs. Partnerships with Italian companies like ENI and Edison NEXT, as well as industry associations, can facilitate market entry and accelerate deployment. The growing demand for sustainable transport solutions, coupled with government incentives, makes this a good moment for international investment.



DATA AND SOURCES

For this White Paper, the most important sources used are:

- Road freight transport - Istituto Nazionale di Statistica
- Italy's National Energy and Climate Plan and Road Transport: An Appraisal | IAI Istituto Affari Internazionali
- About ACEA - ACEA - European Automobile Manufacturers' Association
- Dati statistici - ANFIA - Associazione Nazionale Filiera Industria Automobilistica
- Vehicles and fleet | European Alternative Fuels Observatory
- Carburanti - Archivio storico dei prezzi praticati e dell'anagrafica degli impianti
- Italy Freight and Logistics Companies - Top Company List



PROAXXES' ROLE

Proaxxes combines deep expertise in market research with a proven track record of connecting foreign companies to Italy's dynamic transport sector. Through tailored strategies, Proaxxes assists clients in identifying high-potential opportunities, navigating complex regulatory environments, and building strategic partnerships.

By leveraging its extensive network and industry knowledge, Proaxxes empowers businesses to succeed in Italy's evolving clean fuel landscape.

CURIOUS TO DISCOVER MORE?

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We will make your business **grow.**

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