Financing the necessary ecological transition of transport

Witold Marais
Investment Manager
Energy transition funds
Mirova

Emmanuelle Ostiari
Investment Manager
Energy transition funds
Mirova

The energy, industry, buildings and transport sectors together currently account for three quarters of global greenhouse gas emissions, with mobility alone representing no less than 24% of CO2 emissions caused by energy combustion[(1)].

To limit global warming in accordance with the goals of the Paris Agreement, financing the transition of transport towards low-carbon mobility constitutes both an ecological imperative and an opportunity for positive impact investment.

Key takeaways

- A social and environmental emergency; a major point of leverage to fulfil the Paris Agreement.
- Massive investment requirements: more than €80 Bn expected in Europe up to 2030 in charging infrastructure[(2)].
- Conducive political and regulatory conditions in France and Europe alike: standards, strategic plans, subsidies, etc.
- Diversified and complementary existing technological solutions: electric, hydrogen, biofuels, etc.
- An array of financing options: a wide range of assets to be funded with either a project finance or private equity approach, offering different levels of risks.

LOW-CARBON MOBILITY: A BOOMING MARKET

An essential lever for the green transition

Air pollution caused by transport, due in particular to fine particle and nitrogen oxides (NOx) emissions, is considered to be responsible for more than seven million premature deaths per year[(3)].

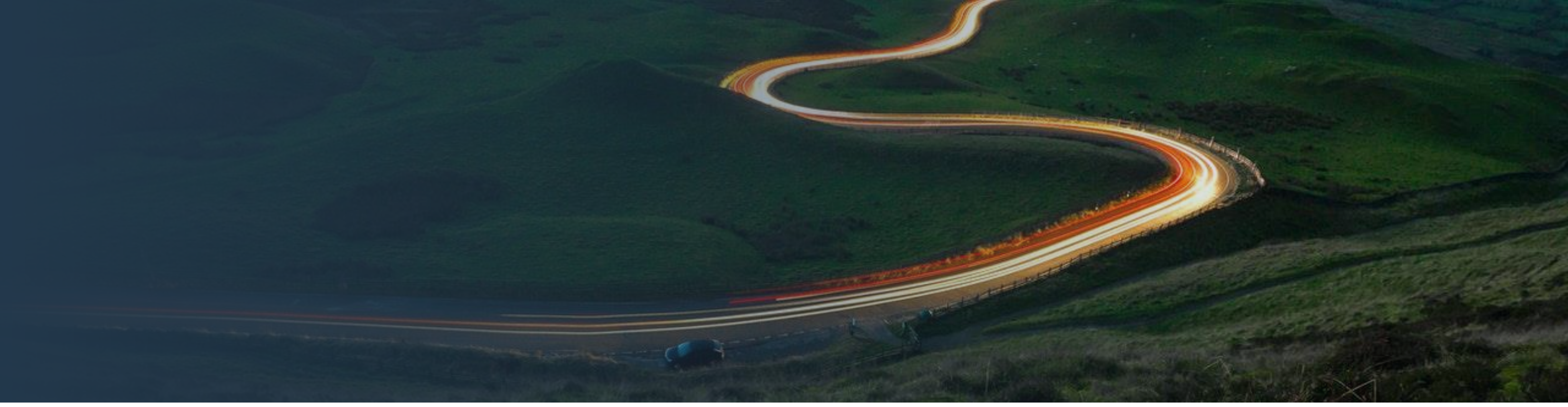
Decarbonising mobility is therefore not solely about tackling the ecological and climate challenge: it is also a social priority. France has set itself a goal in this respect: **making this sector zero carbon by 2050**[(4)].

Technological solutions exist to replace combustion engine powered vehicles with low-carbon transport (electric, hydrogen, biofuel, etc.) and develop a new charging infrastructure.

Supported by a conducive political agenda, this transition represents a clear investment opportunity, particularly considering the sizeable needs for finance.

A favourable legislative environment

In Europe, the many regulations in force are already angled towards reinforcing and accelerating the deployment of electric mobility and developing the necessary infrastructure, on both European and domestic scales.



In 2014, European regulations introduced CO_2 emission targets for car manufacturers.

By lowering the permitted emission threshold for new vehicles to 95 gCO_2/km in 2020, 81 gCO_2/km in 2025 and under 59 gCO_2/km in 2030[5], and by imposing penalties that could amount to several billion dollars for noncompliant manufacturers, these regulations have provided a major catalyst for the development of electric vehicles.

The October 2014 European directive on the deployment of **alternative fuels** infrastructure sets down rules in areas that include standards for electric vehicle charging station connections in order to facilitate their harmonisation.

Finally, on 9 December 2020, the European Commission unveiled its **"Sustainable and smart mobility strategy"** based on an action plan of 82 initiatives, heralding future regulations in favour of sustainable mobility. By 2030, the Commission hopes to see 30 million zero emission cars in operation on European roads, and three million charging points.

2021 is therefore se to be a watershed year for the growth of battery-powered or plug-in hybrid electric models, while around a hundred all-electric models are also anticipated.

In France, **the National Low Carbon Strategy (SNBC)** — a roadmap framing its greenhouse gas (GHG) emissions – aims to make the energy consumed by vehicles zero carbon and adapt infrastructure to ensure that 35% of new personal cars sold in 2030 are electric or hydrogen-powered, with the figure rising to 100% in 2040.

This strategy is backed up by the **LOM (Mobility Framework Act),** which passed into law on 24 December 2019 and establishes the framework required to adequately develop clean mobility, and notably its infrastructure.

Furthermore, France offers a wide spectrum of **public grants to encourage ecofriendly vehicle adoption** (purchase of charging stations, car replacement financial incentives, etc.).

Focus on | An increasingly attractive sector with promising perspectives

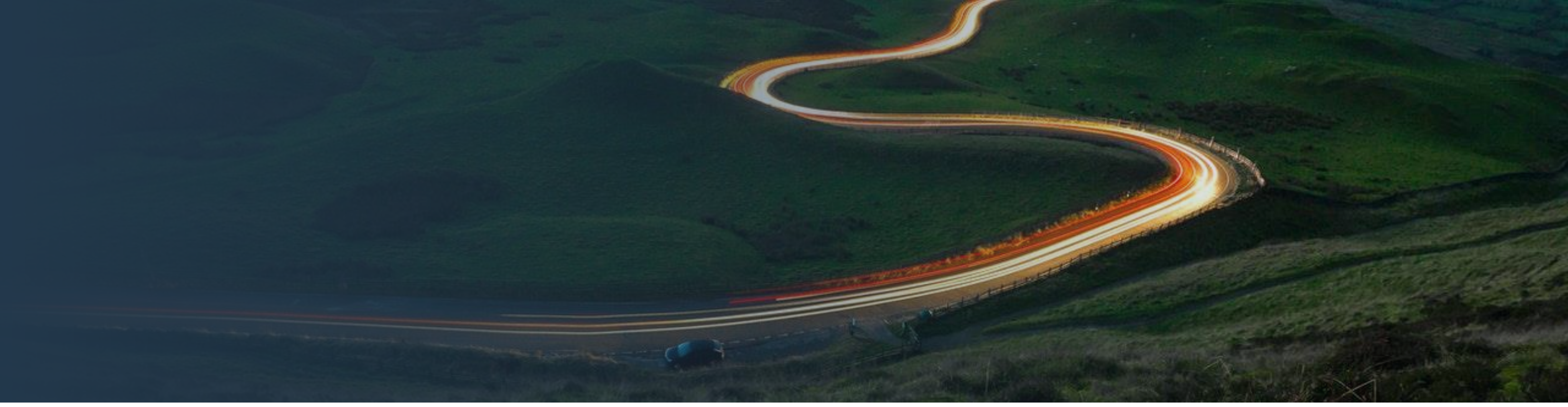
In France, there were 340,000 electric vehicles (and 470,000 including plug-in hybrids) **at the end of 2020 (a 55% increase compared to 2019)**[6].

The forecasts for the coming years are exponential:

- 1 million in 2022[7]
- 5 million in 2028[8]
- 6 million in 2030[9]

Manufacturers have spotted the market opportunities and are proceeding at pace:

- Volkswagen : 70 new electric vehicle (EV) models in the coming years[10]
- BMW : EVs to account for 33% of their sales by 2025[11]
- Daimler : EVs to account for 50% of their sales by 2030[12]
- Volvo : EVs to account for 50% of their sales by 2025[13]



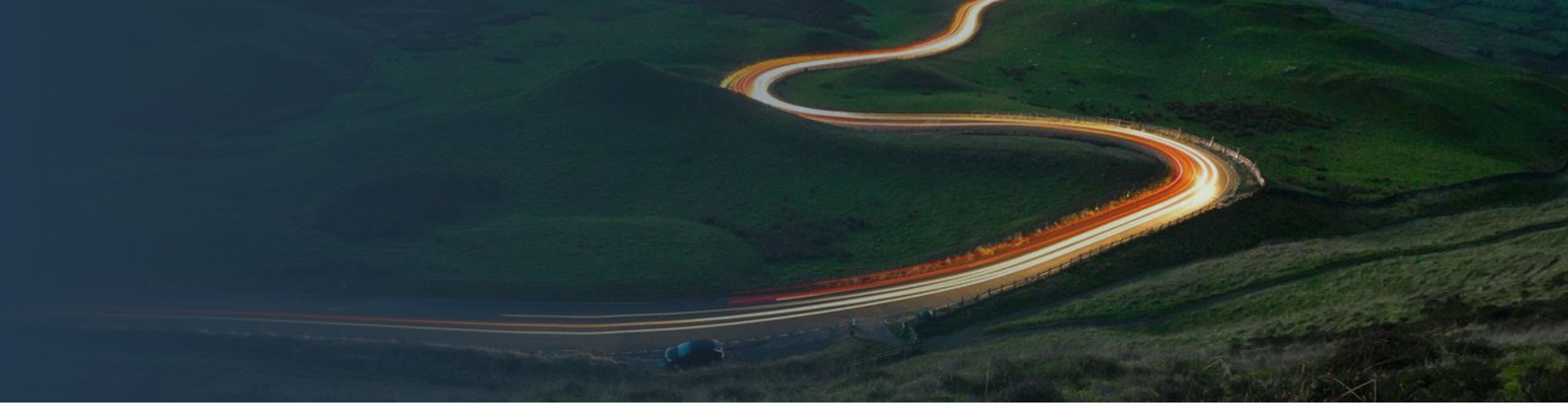
A multitude of financing requirements

Reducing the impact of goods and personal transportation modes creates substantial and diverse financing requirements:

- Funding of manufacturers' R&D.
- Venture capital to support innovation and start-ups.
- Growth capital to scale up solutions.
- Financing of infrastructure to mass-convert energy sources in communities: charging grids (on streets, in homes, in car parks), the electrification of railway and freight infrastructure, the conversion of professional and specialist fleets (taxis, last-mile logistics, etc.).

Although France is largely ahead of other countries in terms of charging points per vehicle (today the country has 300,000 charging stations[14]), **substantial efforts must yet be made to reach 7 million charging points by 2030**[15] (representing 20 times more than in 2019) so as to reassure users through adequate geographical coverage.

> Our mission is to develop "impact investment" to meet a dual goal: generate financial yield while making a positive social or environmental contribution.



FINANCING ZERO-CARBON MOBILITY

Mirova, playing a role in the ecological transition of transportation

True to its vocation of supporting the low-carbon transition of various economic sectors, Mirova, an affiliate of Natixis Investment Managers dedicated to sustainable investment, provides **financing solutions to the entire ecosystem of clean mobility** (electric, hydrogen, biofuel, etc.).

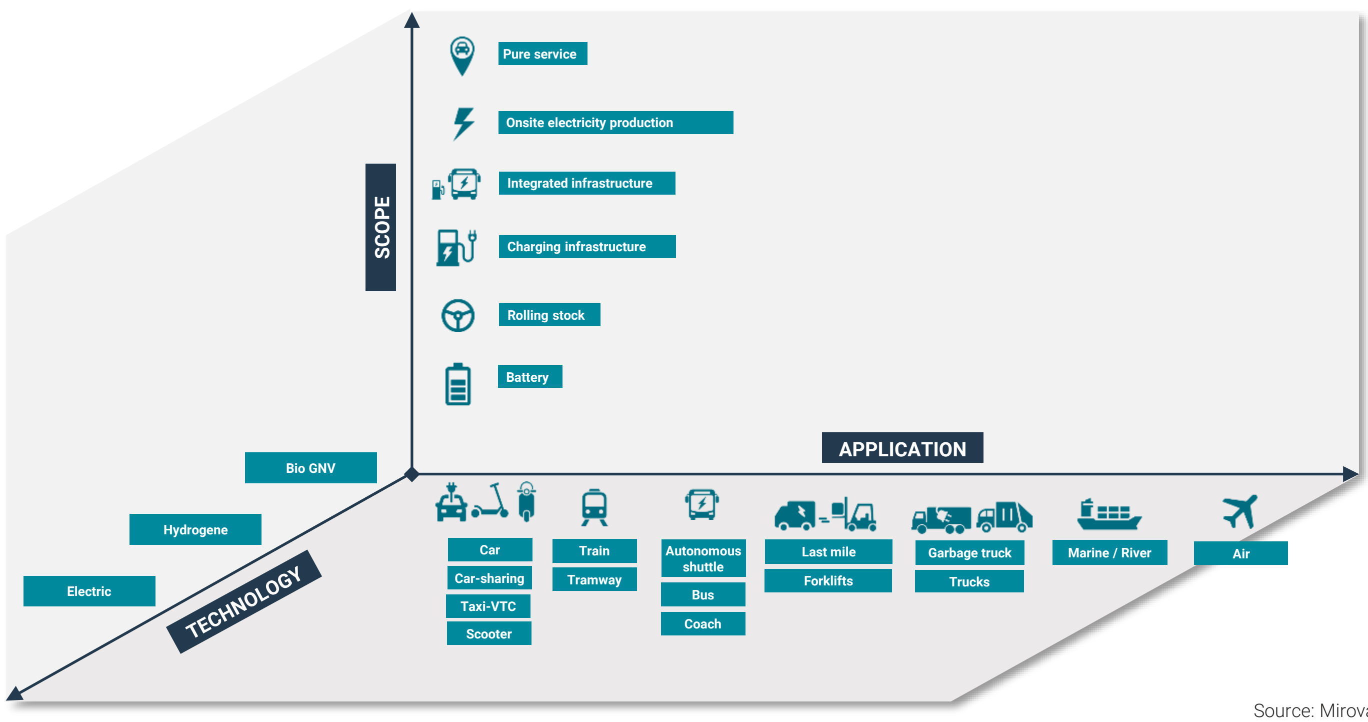
Mirova finances different types of assets

- **Onboard energy storage** in the form of batteries or fuel cells, which today constitute significant and excessive costs.
- **Rolling stock:** buses and coaches, light electric vehicles, trams, logistics machines, waste collection trucks, heavy goods vehicles, light commercial vehicles, etc.: all the links in the transport and logistics chain will be obliged to go electric.
- **Charging infrastructure:** charging points for electric vehicles (from domestic chargers to public charging points and bus depots) but also hydrogen and biofuel filling stations.
- **Integrated infrastructure** combining rolling stock, charging infrastructure and on-site energy generation.

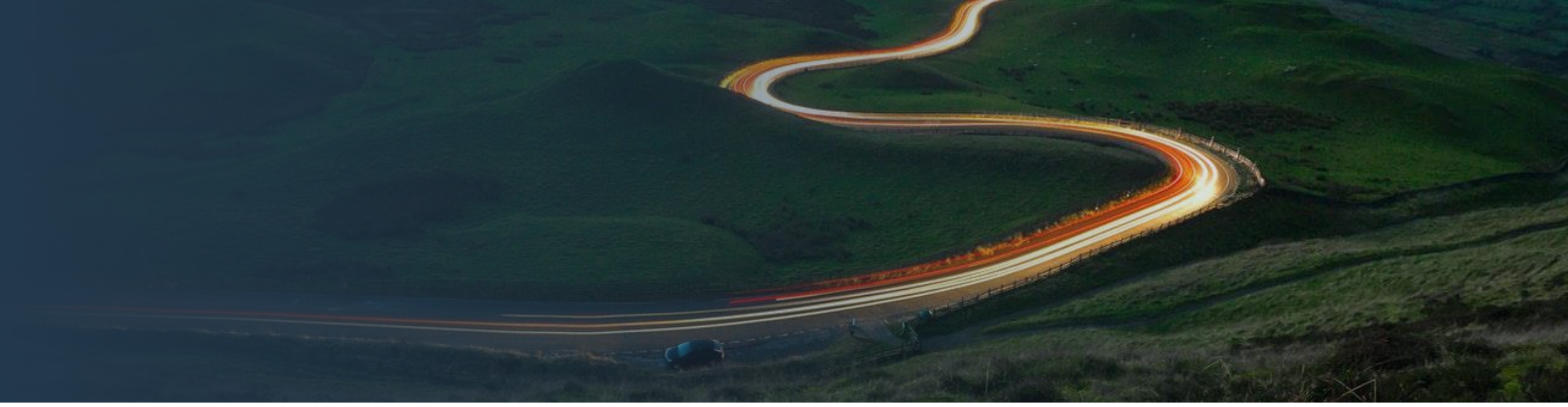
With twenty years' experience of investing in infrastructure projects, Mirova is capable of supporting its industrial partners in the financing of complex projects.

While investment in this transition has so far been borne by manufacturers and operators in their balance sheets, the substantial increase of volumes and requirements is likely to make joint investment models both necessary and positive, to reduce the bill or to deconsolidate.

Explainer | The 3 dimensions of the low-carbon mobility market



Source: Mirova



Mirova makes two types of investment

- **"Infrastructure" investment** by directly financing greenfield infrastructure (to be built and/or deployed) or brownfield infrastructure (which already exists).
- **"Corporate" investment,** by investing into companies developing and/or operating the infrastructure itself.

Mirova participates in several ways

As a **minority or majority shareholder**, through **pure equity** or **subordinated debt**, Mirova adapts the way it invests according to the identified risks (technological obsolescence, demand/use, price, etc.) and partners needs.

These risks can be addressed in the very structuring of the project (by developing, for example, a captive fleet around a given infrastructure) or by the type of investment.

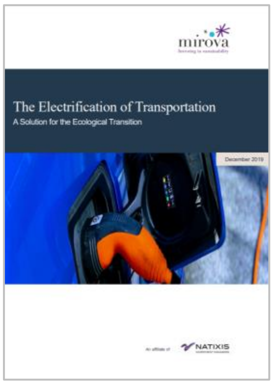
In the electric vehicle charging sector for example, while the currently low EV take-up may complicate the economic feasibility of a charging point network, Mirova initially opted to invest further up the value chain by buying into Driveco, an installer and operator of charging stations primarily working in the business-to-business segment.

Mirova thereby gained exposure to this market while remaining sheltered from "traffic risk" (i.e., the possibility that not enough vehicles would come and use the charging infrastructure).

> "Our commitment: provide flexible financing solutions so that our partners can deploy their resource-consuming activities while lightening their balance sheet.

Find out more

> Discover our study on the electrification of transportation



Proof by example | 3 deals to follow

DRIVECO

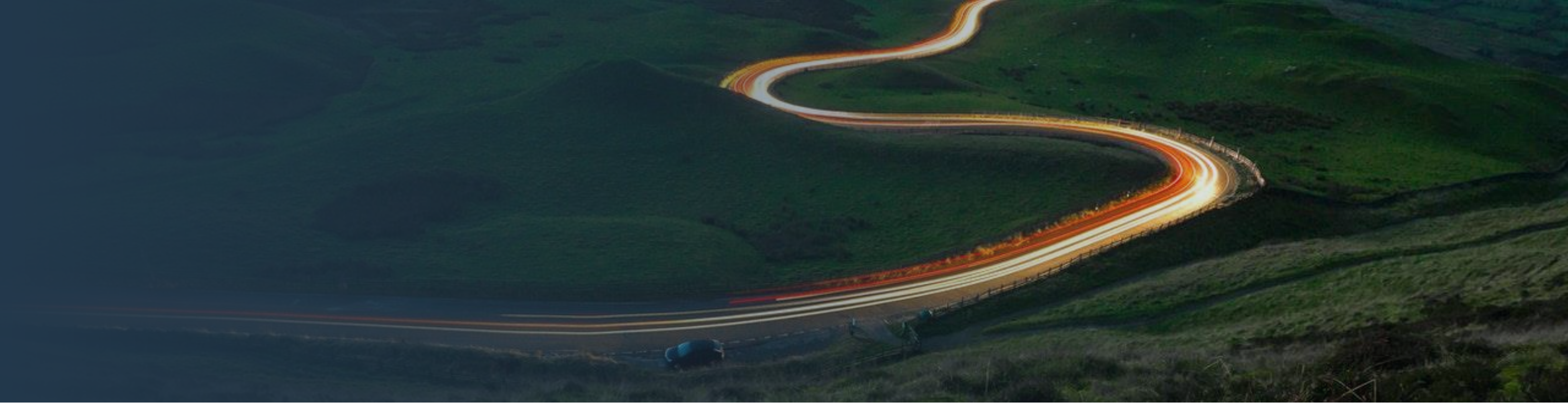
An expert in electric and solar-powered mobility, DRIVECO continues to develop on an exponentially growing electric vehicle charging solution market. The company has just raised a significant sum of several million euros from Mirova. > Find out more about this investment

CLEM'

Mirova and the Banque des Territoires are investing nearly €3.6 million in a project company developed with Clem', a specialist in car-sharing of electric vehicles. This investment is dedicated to the launch of a new car-sharing service for electrical light commercial vehicles in Paris and in the Greater Paris region.
> Find out more about this investment

HYPE

A pioneer in hydrogen mobility with the world's largest hydrogen-powered taxi fleet, Hype has shifted up another gear by raising 80 million dollars from four new financial partners, including Mirova. This operation will help accelerate the deployment of hydrogen filling stations with new locations already set to open in 2021 in the Greater Paris region. > Find out more about this investment



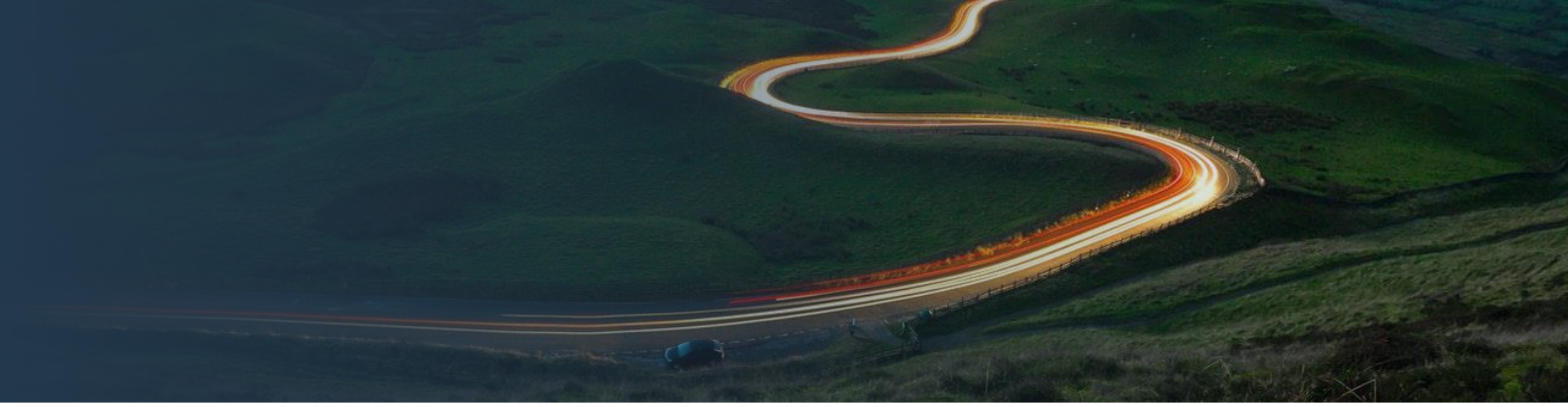
Sources and references

1 https://www.transportenvironment.org/sites/te/files/publications/01%202020%20Draft%20TE%20Infrastructure%20Report%20Final.pdf
2 https://www.iea.org/reports/tracking-transport-2020
3 https://www.who.int/mediacentre/news/releases/2014/air-pollution/fr/
4 https://ec.europa.eu/clima/policies/transport/vehicles/regulation_fr2 ;
5 https://www.francemobilites.fr/loi-mobilites/fiches-outils/viser-la-decarbonation-des-transports-terrestres-en-2050
6 http://www.avere-france.org/Uploads/Documents/161011498173a9d7b7d55aef7bdda9008a7e50cb38-barometre-des-immatriculations-decembre-2020(9).pdf
7 https://www.automobile-propre.com/100-000-bornes-et-1-million-de-voitures-electriques-en-france-en-2022/
8 https://polenergie.org/nos-actualites/contribution-du-cea-en-matiere-de-reseaux-energetiques/
9 https://www.la-croix.com/Economie/France/Le-developpement-voitures-electriques-reseau-sous-tension-2017-02-03-1200822315
10 https://www.capital.fr/entreprises-marches/volkswagen-veut-lancer-pres-de-70-nouveaux-modeles-electriques-dici-2028-1331049
11 https://www.automobile-propre.com/breves/ventes-vehicules-electriques-hybrides-rechargeables-2025/a
12 https://media.daimler.fr/ambition2039-notre-chemin-vers-la-mobilite-durable/
13 https://www.autoactu.com/actualites/volvo-veut-realiser-50-de-ses-ventes-mondiales-en-ligne-d-ici-2025
14 https://www.lesechos.fr/partenaires/enedis-la-transition-connecte/bornes-de-recharge-electrique-accelerer-le-maillage-1268490 ; https://www.enedis.fr/la-mobilite-electrique
15 https://www.ecologie.gouv.fr/developper-lautomobile-propre-et-voitures-electriques

Photo credits: Banner page 1 : Trushotz ; page 2 : Chuttersnap ; page 3 : Aleksejs Bergmanis.

Legal information

Mirova is an asset-management company dedicated to sustainable investment and an affiliate of Natixis Investment Managers. Thanks to its conviction-led management style, Mirova's objective is to combine a quest for long-term value creation with sustainable development. Pioneers in many areas of sustainable finance, Mirova's talents are committed to innovation in order to provide their clients with high environmental and social impact solutions. Mirova manages €15.8 billion as of 30 September 2020. Mirova has been awarded the B Corp* label and the status of "mission led company". *References to a ranking, award or label do not prejudge the future performance of the fund or the manager.



- In Australia: Provided by Natixis Investment Managers Australia Pty Limited (ABN 60 088 786 289) (AFSL No. 246830) and is intended for the general information to professional and non-professional clients

- In New Zealand: This document is intended for the general information of New Zealand professional and non-professional clients and does not constitute financial advice. This is not a regulated offer for the purposes of the Financial Markets Conduct Act 2013 (FMCA) and is only available to New Zealand investors who have certified that they meet the requirements in the FMCA for wholesale investors. Natixis Investment Managers Australia Pty Limited is not a registered financial service provider in New Zealand.

- In Latin America: Provided by Natixis Investment Managers S.A.
  In Uruguay: Provided by Natixis Investment Managers Uruguay S.A., a duly registered investment advisor, authorised and supervised by the Central Bank of Uruguay. Office: San Lucar 1491, Montevideo, Uruguay, CP 11500. The sale or offer of any units of a fund qualifies as a private placement pursuant to section 2 of Uruguayan law 18,627.
  In Colombia: Provided by Natixis Investment Managers S.A. Oficina de Representación (Colombia) to professional and non-professional clients for informational purposes only as permitted under Decree 2555 of 2010. Any products, services or investments referred to herein are rendered exclusively outside of Colombia. This material does not constitute a public offering in Colombia and is addressed to less than 100 specifically identified investors.
  In Mexico Provided by Natixis IM Mexico, S. de R.L. de C.V., which is not a regulated financial entity, securities intermediary, or an investment manager in terms of the Mexican Securities Market Law (Ley del Mercado de Valores) and is not registered with the Comisión Nacional Bancaria y de Valores (CNBV) or any other Mexican authority. Any products, services or investments referred to herein that require authorization or license are rendered exclusively outside of Mexico. While shares of certain ETFs may be listed in the Sistema Internacional de Cotizaciones (SIC), such listing does not represent a public offering of securities in Mexico, and therefore the accuracy of this information has not been confirmed by the CNBV. Natixis Investment Managers is an entity organized under the laws of France and is not authorized by or registered with the CNBV or any other Mexican authority. Any reference contained herein to "Investment Managers" is made to Natixis Investment Managers and/or any of its investment management subsidiaries, which are also not authorized by or registered with the CNBV or any other Mexican authority.

The above referenced entities are business development units of Natixis Investment Managers, the holding company of a diverse line-up of specialised investment management and distribution entities worldwide. The investment management subsidiaries of Natixis Investment Managers conduct any regulated activities only in and from the jurisdictions in which they are licensed or authorized. Their services and the products they manage are not available to all investors in all jurisdictions. It is the responsibility of each investment service provider to ensure that the offering or sale of fund shares or third party investment services to its clients complies with the relevant national law.

The provision of this material and/or reference to specific securities, sectors, or markets within this material does not constitute investment advice, or a recommendation or an offer to buy or to sell any security, or an offer of any regulated financial activity. Investors should consider the investment objectives, risks and expenses of any investment carefully before investing. The analyses, opinions, and certain of the investment themes and processes referenced herein represent the views of the portfolio manager(s) as of the date indicated. These, as well as the portfolio holdings and characteristics shown, are subject to change. There can be no assurance that developments will transpire as may be forecasted in this material. The analyses and opinions expressed by external third parties are independent and does not necessarily reflect those of Natixis Investment Managers. Past performance information presented is not indicative of future performance.

Although Natixis Investment Managers believes the information provided in this material to be reliable, including that from third party sources, it does not guarantee the accuracy, adequacy, or completeness of such information. This material may not be distributed, published, or reproduced, in whole or in part.

All amounts shown are expressed in USD unless otherwise indicated.

Non-contractual document, issued in February 2021.

MIROVA
Portfolio management company
French Public Limited liability company Regulated by AMF under n°GP 02-014
RCS Paris n°394 648 216
Registered Office: 59, Avenue Pierre Mendes France - 75013 Paris
Mirova is an affiliate of Natixis Investment Managers.
Find out more on: www.mirova.com
Linkedin : https://www.linkedin.com/company/Mirova/
Twitter : https://twitter.com/Mirova_RI

NATIXIS INVESTMENT MANAGERS
French Public Limited liability company
RCS Paris n°453 952 681
Registered Office: 43, Avenue Pierre Mendes France – 75013 – Paris
Natixis Investment Managers is a subsidiary of Natixis.
Find out more on: www.im.natixis.com
Linkedin : https://www.linkedin.com/company/natixis-investment-managers
Twitter : https://twitter.com/natixisim