On the road to carbon neutrality
Renault Group's annual publications for 2020 include a Universal registration document and a Climate Report. This choice reflects the proactive environmental strategy that the Group has firmly pursued across all business activities since 2005. The Group has set the aim to achieve carbon neutrality in Europe by 2040 and worldwide by 2050. With the publication of its first Climate Report, it reaffirms its strong commitments to a sustainable mobility that protects natural ecosystems. The report is complementary to the new strategic plan, Renaulution, presented on January 14, 2021. This Climate Report applies the guidelines issued by the Task Force on Climate-Related Financial Disclosures (TCFD), which advises companies on how to evaluate and disclose the risks and opportunities posed by climate change. The Group has supported the TCFD since 2019 and considers its recommendations to be a relevant framework for communicating to stakeholders on climate issues in the transition to a low-carbon economy. The correspondence table on page 56 of the report shows how the information presented by the Group ties in with the TCFD’s recommendations. KPMG, acting as an independent third party, reviewed and expressed a reasonable assurance on the following indicators presented in this report: Scope 1 greenhouse gas emissions and Scope 2 greenhouse gas emissions.

Information about water, health and biodiversity can be found in the Environment pages of Renault Group’s corporate website. https://group.renault.com/en/our-commitments/respect-for-the-environment/
Today, the magnitude of the climate challenge and the urgent need for collective action are no longer subject to debate. Renault Group is making concrete and wide-ranging contributions to carbon emissions reduction, with the aim to achieve carbon neutrality in Europe by 2040 and worldwide by 2050.

— Renault Group was the first full-line carmaker to embrace the all-electric car. Eight years after the launch of the first ZOE, with more than 390,000 electric vehicles on the road, we are making a significant contribution to reducing emissions of vehicles in use. Off the road, we have developed a pathway to decarbonize our operations: upstream, by reducing the carbon footprint of our production facilities and suppliers, and downstream, by the remanufacturing, disassembly and recycling of end-of-life vehicles and their batteries on an industrial scale.

For this, we have begun the transformation of the Group’s Flins factory, which will become Europe’s leading circular economy site dedicated to mobility. The Renault Group will move from a volume to a value approach and from the mindset of car manufacturer to that of mobility operator. We are scaling up the electrification of the product plan for our various brands. As of 2025, every model launched under the Renault brand will be electric or electrified. At the same time, we are accelerating the delivery of new mobility, energy and data services through our recently created Mobilize brand. At the company’s highest level, we are taking action and making decisions for the climate. We have created an Ethics and CSR Committee within the Board of Directors to reinforce our climate governance. What’s more, we are playing in a team. We know that the fight for the climate can only be won by combining our expertise, our actions and our talents. We will also scout out expertise and boost our know-how through joint ventures, so we can progress faster and with the best in the areas of hydrogen technology, end-of-life battery recycling and decarbonized supply chains. We are collaborating with Movin’On Lab, a coalition of more than 300 companies deeply engaged in mobility.

We are proud to have been the first carmaker to obtain the validation of the SBTi (Science Based Targets initiative) for our climate pathway in 2019 and aim to achieve carbon neutrality in Europe by 2040 and worldwide by 2050. Our climate project is a pillar of our engagement and responsible capitalism: it is core to the Group’s transformation and purpose, which integrates economic performance with environmental performance.
Greenhouse gases, carbon offsetting, global warming: terms like these have become part of everyday language, but the physical mechanisms they refer to are complex and not always clearly understood.

The greenhouse effect is a natural and even necessary phenomenon, by which some of the heat from the sun’s rays is retained by certain gases such as carbon dioxide (CO\textsubscript{2}) and methane. This helps the Earth maintain a habitable temperature for all its ecosystems. However, due to the massive production of CO\textsubscript{2} resulting from human activity and population growth, this heat-trapping process has intensified, increasing our planet’s surface temperature. This is the main cause of climate change, which has led to a greater frequency of extreme and devastating environmental events, which include floods, storms, forest fires and droughts. Ultimately, the survival of the world’s ecosystems is at stake.

Oceans and plants capture the carbon dioxide emitted by people and animals and by human activities, keeping the quantity of carbon at a stable level. This balance has been upset by the significant burning of fossil fuels (gas, oil and coal) by humans, combined with the spread of artificial land due to urban sprawl. This disruption can be slowed by increasing our use of renewable energy, recycling and non-motorized transportation, such as bicycles. We can also expand the Earth’s carbon absorption capacity by replanting forests and developing other carbon capture solutions.

Carbon neutrality is achieved when the volume of CO\textsubscript{2} emissions generated by an organization or region is balanced by an equivalent removal of carbon, whether through natural carbon sinks or industrial processes for carbon capture and reuse. This is different from carbon offsetting, in which the impact of fossil fuel emissions in one area is neutralized by financing new carbon sinks in another area (such as reforestation or carbon capture solutions).

Transportation generates 25% of the world’s CO\textsubscript{2} emissions, and 45% of these are from passenger road vehicles (11% of the total). As populations and people’s mobility needs continue to grow, the automotive industry’s role in greenhouse gas reduction has become an important one.

*source: IEA (INTERNATIONAL ENERGY AGENCY)
COP 21, the global climate conference, was held in Paris in 2015. At its close, 196 parties pledged to reduce their greenhouse gas emissions. The Paris Agreement’s focus is to keep the global rise in temperature “well below 2°C” while “pursuing efforts to limit the temperature increase to 1.5°C”.

Meanwhile, Europe is implementing its own climate strategy, set out in the European Green Deal. Large cities are already taking clean air measures: low emission zones, tolls, congestion charges and limited access areas already restrict access to city centers for the most polluting vehicles.

RENAULT GROUP ALIGNS WITH EUROPEAN AND GLOBAL AMBITIONS

The collaborative participation of citizens, businesses and governments was decisive in the finalization of the Paris Agreement. This synergy is equally essential to its successful implementation. Well aware of the automotive industry’s climate challenges and role, Renault Group has aligned its carbon footprint reduction strategy with the targets set by the Paris Agreement to “pursue efforts to limit the temperature increase to 1.5°C”. In April 2021, the Group announced its aim to achieve carbon neutrality in Europe by 2040, in alignment with the European Green Deal, and worldwide by 2050.
PAST AND PRESENT,

AHEAD OF THE CURVE
For **120 years**, Renault Group has been an emblematic figure in the automotive world. In 2020, it sold **2.9 million vehicles** in more than **130** countries. Powered by the alliance with Nissan and Mitsubishi Motors and its relentless drive for **innovation**, Renault Group is now at the forefront of reinventing **mobility**. The strategic plan unveiled in January 2021, **Renaulution**, reorganizes the Group around four autonomous business units:

- **LA NOUVELLE VAGUE**: A modern brand with a focus on technology, energy and services
- **TOUTSIMPLEMENT**: Best value for money
- **AVANT-GARDE**: Exclusive, innovative sports cars
- **MOBILIZE**: New sustainable mobility, data and energy services

The Renaulution plan begins a new era for the Group: it will ensure **sustainable profitability** and alignment with its **ambition to achieve carbon neutrality** in Europe by **2040** and worldwide by **2050**.

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**First 92g**

*Results to be consolidated and validated by the European Commission in the coming months.*

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Electric mobility has become a part of everyday life. The latest Renault eWays/IPSOS survey, published in December 2020, showed that eight in ten Europeans want to see a larger offer of hybrid and electric vehicles in the next ten years. Renault Group spearheaded this market with the launches of KANGOO Z.E. and FLUENCE Z.E. in 2011, later followed by TWIZY and ZOE.

In electric light commercial vehicles in Europe.

No. 1 in electric light commercial vehicles in Europe.

114% growth in ZOE sales in 2020. The model is the best-selling electric vehicle in Europe.

>390,000 electric vehicles on the road at the end of 2020.

10 new electric models to be launched by 2025, including an updated version of the legendary R5 (see Action #1 to learn more).
THE LARGEST ELECTRIC FLEET FOR CAR-SHARING IN EUROPE

With more than 10,000 vehicles on the road, Renault Group is the European leader of electric car-sharing in Europe. It is present in most European capitals either as the operator of shared mobility services (Zity and Renault Mobility) or through partnerships.

>400,000

4,500
passenger and light commercial vehicles in France for Renault Mobility (car-sharing and short-term rentals).

Mobilize
four dedicated vehicles for new mobility services soon to be available (see Action #4 to learn more).
TANGIER: THE NET ZERO CARBON PLANT

Since 2012, Renault’s plant in Tangier has been a worldwide beacon of environmental excellence. Ninety-two percent of the energy it uses is thermal and produced from biomass consisting of olive pomace, a residue of olive oil manufacturing. The addition of locally produced wind power means that renewable sources meet virtually all its energy needs. As a result, more than 86,000 tons of CO₂ emissions were avoided in 2020. In addition to its “zero carbon, zero emissions” performance, the plant is also recognized for its “zero industrial effluent discharges”.

AND ELSEWHERE?

In France, the Douai plant (featuring a smart electric ecosystem using stationary storage) and the Cléon plant (an Industry 4.0 pilot site) are innovative, emblematic examples of the Group’s energy efficiency strategy. In Brazil, the Group has signed a framework agreement with Itaipu Binacional, the country’s largest supplier of renewable energy.

AFTER LEAVING THE FACTORY, A LOW EMISSIONS SUPPLY CHAIN

Since 2010, the Group has implemented environmental supply chain management to reduce CO₂ emissions generated by freight transportation. Reducing fuel purchases, optimizing truck loads and developing multimodal transportation are the flagship measures of the Logistics ECO2 plan (see Action #9 to learn more).

Top 3

In terms of factory CO₂ emissions per vehicle produced, Renault Group is one of the three most virtuous carmakers (internal source). The Group’s energy conservation performance is also a driver of its competitiveness among industry peers.
End-of-life vehicle parts, materials and batteries can become new resources through recycling, reuse and waste recovery. Renault Group was the first carmaker to integrate circular economy into its entire value chain, in 2005, and to take an equity stake in the recycling industry with the creation of its Renault Environnement subsidiary, in 2008.

3 subsidiaries dedicated to circular economy activities generating more than €500 million in annual revenues since 2018.

- **INDRA** (50% stake held) joint-venture with SUEZ.
- **BOONE COMENOR METALIMPEX** (33% stake held) joint-venture with SUEZ.
- **GAIA** wholly-owned subsidiary of Renault Environnement.

185,000 engines and gearboxes refurbished at the Choisy-le-Roi reconditioning and standard exchange plant in the past 10 years.

**The Re-Factory** in Flins, first European factory dedicated entirely to the circular economy, was officially launched in early March 2021 (see Action #7 to learn more).
At Renault Group, we are proud of what we have already accomplished. Ten years ago, we were the first to embrace the circular economy and electric vehicles. Over the past decade, we have reorganized our Group’s management and working methods to develop ever more innovative models. Our efforts have paid off, in particular by making Renault Group the European leader for electric vehicles. Continuing on this path, we put our climate project at the heart of the Renaulution strategic plan, aligning with the new expectations of civil society and rising generations, who demand a more sustainable economic model.

In this Climate Report, we take the time to describe our ambitions, our methods and our strategic actions to achieve carbon neutrality, guided by a series of short- and medium-term milestones. We wanted to share with you our determination to meet the climate challenge by developing technological solutions that are at once innovative, ecological and systemic.

This period of transition has led us to reshape our organization, step up our climate response and interact with a multitude of partners. By collaborating with cities, regions, energy players, NGOs and academics, we can advance together toward sustainable mobility. We are diversifying our businesses: with batteries, we are working at the frontier between the automotive and energy sectors. Increasingly, cars are at the intersection of different worlds: cities, energy and digital.

In this report, you will learn about our decarbonization pathways, powered by our know-how and centers of excellence in France and abroad. With the Re-Factory being created in Flins, the Group is once again ahead of the curve in environmental innovation and excellence. —
OUR ACTION PLAN FOR SHAPING THE FUTURE
Renault Group's climate project is composed of nine main actions. They will be gradually rolled out across the Group until 2030, an interim milestone toward our ambition of carbon neutrality in Europe by 2040 and worldwide by 2050.

**OUR ACTION PLAN**

**FOR SHAPING THE FUTURE**

- **ACTION #1**: Electrify all new Renault passenger car models by 2025
- **ACTION #2**: Become the European leader of hydrogen-powered light commercial vehicles by 2025
- **ACTION #3**: Deploy hybrid, natural gas and LPG technologies across all brands
- **ACTION #4**: Increase the rate of use of vehicles by at least 20% through shared mobility
- **ACTION #5**: Accelerate the deployment of higher performing, low-carbon and reusable batteries
- **ACTION #6**: Engage the entire supply chain
- **ACTION #7**: Strengthen Renault Group's circular economy leadership
- **ACTION #8**: Halve our sites' emissions by 2030*
- **ACTION #9**: Reduce emissions from the transportation of parts and vehicles by 30% by 2030*

*Compared with 2019
LCA is a science-based tool used to quantify a vehicle’s environmental impacts throughout its life cycle, encompassing raw material extraction, the manufacturing and assembly of components, and the vehicle’s transportation, use, maintenance and recycling. Renault Group uses this internationally standardized, multi-criteria tool to calculate the potential contribution to global warming due to greenhouse gas emissions* and to validate the environmental benefits of its technological innovations. LCA calculations are made for new vehicles and cover 80% of vehicle sales.

In Europe, vehicles sold that do not meet annual quantitative targets for CO₂/km exhaust emissions are penalized (CAFE standards). In 2018, the Group set up the CAFE Control Tower, a team tasked specifically with ensuring that vehicles comply with regulatory CO₂ emissions targets. Outside of Europe, the Group must meet similar regulatory standards. In all, about 70% of Group sales around the world are subject to CAFE-type regulations.

In 2020, 80% of the carbon footprint of internal combustion engine (ICE) vehicles was generated by emissions during vehicle use and fuel production. These are called “well-to-wheel” emissions. For electric vehicles, well-to-wheel emissions are generated during the production of electricity. Over their entire life cycle (including battery manufacturing), electric vehicles have an average carbon footprint that is 28% smaller than equivalent ICE vehicles, in Europe. In France, their footprint is 64% smaller.**

*Measured in CO₂e/vehicle sold
**Comparative LCA analysis, ZOE vs. CLIO
ACTION #1

**Electrify all new Renault passenger car models by 2025**

**WHY?**

An internal combustion engine (ICE) vehicle emits three times more CO₂ in its life cycle than an electric vehicle*. In Europe, member states must implement national energy and climate plans (NECP) guaranteeing their contribution to achieving the EU’s climate and energy goals. As part of this effort, they are phasing out the sale of ICE vehicles (by 2030 for the United Kingdom and by 2040 at the latest for France). Furthermore, the UN predicts that two-thirds of the world’s population will be urban by 2050, and cities are already increasingly restricting access for ICE cars.

**HOW?**

- **Pool manufacturing across 3 platforms:** CMF-B and CMF-EV (for electric vehicles), CMF-CD.
- **Create an “Electro pole” in northern France which** will be the Group’s largest electric vehicle production capacity in the world.
- **Launch 7 electric models** under the Renault brand, including two C-segments.
- **Accelerate electrification** by shortening the time to develop a new vehicle by 25%.

**AND BEYOND**

- **90%** share of electrified vehicles in passenger car sales in Europe by 2030 – the Renault brand’s ambition.
- **65%** less well-to-wheel CO₂e emissions for a Renault Group vehicle sold in Europe in 2030.**
- **5,000** charging stations have already been installed by Elexent, a Renault Group subsidiary specialized in charging solutions for electric and plug-in hybrid fleets.

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*Source: Transport & Environment (T&E) 2020 – Europe data
**Compared with 2019
ACTION #2

Become the European leader of hydrogen-powered light commercial vehicles by 2025

With emblematic models like KANGOO, TRAFIC and MASTER, Renault is the European leader of the light commercial vehicle (LCV) market. Fast growth in this sector and tougher diesel regulations have led the Group to develop electric versions of these models. Today, its goal is to improve their range and charging speed.

WHY?

HOW?

WITH PLUG POWER, TO CAPTURE 30% OF THE EUROPEAN HYDROGEN-Powered LIGHT COMMERCIAL VEHICLE MARKET BY 2030

Hydrogen fuel cell technology makes it possible to extend the range of an electric vehicle without increasing its battery size, by providing a zero-emissions auxiliary power source. As a complement to charging stations, a hydrogen range extender recharges a vehicle in just a few minutes.

In January 2021, Plug Power and Renault Group announced their plan to join forces to develop a full hydrogen-powered offer: Vehicles with range of at least 350 km (WLTP standard) and a shorter charging time.

Comprehensive, turnkey solutions for fuel-cell light commercial vehicles: refueling stations, green hydrogen delivery (from decarbonized energy sources) and maintenance.

AND BEYOND

ROBUST PARTNERSHIPS

like the one with Faurecia to develop hydrogen storage systems for light commercial vehicles (starting at the end of 2021).

LARGE-SCALE DISTRIBUTION

Collaborative projects to develop solutions involving all value chain participants, from the energy producers to the public-sector and private-sector distributors.

OPPORTUNITIES BEYOND MOBILITY

Delivering fuel cell, charging and stationary storage solutions to other sectors.
ACTION #3

Deploy hybrid, natural gas and LPG technologies across all brands

WHY?

Renault Group is developing low-emissions engines (E-TECH Hybrid and gas) to complement its offer of electric vehicles. Exclusively developed by the Group, E-TECH Hybrid reduces the hybrid engine's fuel consumption by 40% compared with an equivalent internal combustion engine*. Its E-TECH Plug-in Hybrid version delivers a zero-emissions mobility solution. Deploying a range of gas-powered vehicles enables Renault Group to offer solutions for a variety of uses and driving environments, using alternative fuels such as natural gas for vehicles (NGV) and liquified petroleum gas (LPG), which generate less CO₂ than gasoline. Emissions from these vehicles can be further reduced by 30% to 100% in some countries, where new decarbonized production methods transform waste.

HOW?

ACCELERATE THE E-TECH HYBRID OFFERING

- **Goal:** 35% of hybrid vehicle sales under the Renault brand in Europe in 2025.
- **Deploying** new technologies to further reduce hybrid vehicle emissions: connectivity, eco-driving, and a zero-emissions mode to enable access to low emissions zones.

DEVELOP ALTERNATIVE POWERTRAINS

- Biogas-powered light vehicles in Europe and internationally.
- Range of vehicles with low-carbon fuel delivery solutions.

AND BEYOND

- 35% reduction in global well-to-wheel CO₂ emissions of a Renault Group vehicle sold worldwide by 2030 (compared with 2019).**
- 3 new hybrid models launched in 2021: Renault CAPTUR, Renault ARKANA and Renault MEGANE Sedan.

*Urban driving cycle
**Including the Lada brand
ACTION #4

Increase the rate of use of vehicles by at least 20% through shared mobility

A personal car is actually in use only 10% of the time. Meanwhile, it loses half its value in just three years. With this knowledge, some users are seeking to reduce the overall cost of their travel and turning to new mobility solutions. One of these is shared mobility, which optimizes the use of a car and reduces the number of vehicles in circulation, as well as their environmental impact.

The launch of the Mobilize brand for new shared mobility and energy supply services in 2021. It will feature four brand-specific electric models by 2025: two for car-sharing, one for ride-hailing and one for the "last mile".*

MOBILITY SERVICES
- Deploy flexible services for transporting goods and people (car-sharing, ride-hailing, last-mile delivery* and on-demand transport).

FINANCING SOLUTIONS
- Facilitate access to new forms of mobility by offering dedicated financial services, such as leasing and pay per use.

MAINTENANCE AND RECYCLING SERVICES
- Extend the lives of vehicles and batteries and expand second-life use.

ENERGY ECOSYSTEM
- Facilitate access to charging infrastructure, smart charging, energy storage and battery life cycle management.

AND BEYOND

EZ-1
This purpose-designed vehicle for shared mobility will be made with 50% recycled materials and be 95% recyclable itself.

25%
of GHG emissions from road transport are generated in the last mile*. Developing all-electric vehicles to transport goods will ensure compliance in low emissions urban areas.

*Delivery to the end customer
ACTION #5
Accelerate the deployment of higher performing, low-carbon and reusable batteries

**WHY?**

Producing the battery of an electric car accounts for a third of its carbon footprint according to ADEME* (due to the use of electricity from fossil fuels and the extraction of strategic raw materials such as cobalt and lithium). Starting in 2024, the European Union will require battery manufacturers to measure this footprint over a battery’s life cycle, from production to recycling. A European draft regulation plans to set a maximum carbon footprint threshold for batteries put on the market as of 2027.

**HOW?**

*LOW-CARBON BATTERY PRODUCTION*

- Working together with suppliers to reduce the carbon footprint of battery production (by using decarbonized energy and materials).

*RECYCLING*

- Short-loop reuse of strategic materials (cobalt, nickel, lithium) to produce new batteries.

*MAINTENANCE*

- Repair centers for batteries during their first and second lives.

*SECOND LIFE*

- Repurposing batteries for the stationary storage of renewable energy, mobile solutions (boats, cooling systems, airport machinery) and V2G systems.

**RECYCLING, MAINTENANCE AND SECOND-LIFE OPERATIONS ARE ALL CARRIED OUT WITHIN THE FLINS/RE-FACTORY ECOSYSTEM.**

**AND BEYOND**

- **20%**
  - 20% smaller battery carbon footprint for the new R5 compared with ZOE, in 2025. This reduction may reach at least 35% in 2030.

- **80%**
  - 80% share of recycled strategic materials that Renault Group plans to reintegrate into new battery production in 2030 (closed loop).

- **V2G**
  - In the future, vehicle-to-grid (V2G) technology will enable electric vehicles to discharge energy onto the power grid to manage spikes in consumption.

*Agency for ecological transition (data for France)*

*APRIL 2021*  
group.renault.com

WATCH THE VIDEO:
"THE SECOND LIFE OF CAR BATTERIES"
Engage the entire supply chain

**Raw material extraction and parts manufacturing account for 15% of a Group vehicle’s carbon footprint, second only to use. Engaging its 15,000 suppliers in active efforts to reduce their own environmental footprint is a priority for Renault Group’s climate strategy. In 2020, the Group placed in the top 7% of the most engaged companies in the CDP’s Supplier Engagement Leaderboard.**

**THE 6 PRIORITY IMPROVEMENT AREAS WHERE RENAULT GROUP IS COLLABORATING WITH SUPPLIERS**

**AREA 1**
- Set up a CO₂ footprint assessment system using outside surveys conducted by an accredited CDP supply chain organization.

**AREA 2**
- Require suppliers to make CSR commitments and have their performance assessed by an outside organization.

**AREA 3**
- Identify the six highest-emitting commodities and implement a joint action plan with suppliers to design a lower-carbon process.

**AREA 4**
- Co-develop a co-innovation policy to invent new technologies to meet future regulations and consumer expectations.

**AREA 5**
- Increase local sourcing for production plants.

**AREA 6**
- Establish an internal carbon price.

**AND BEYOND**

**30%**
30% emissions reduction goal for the parts and materials supply chain by 2030, in CO₂eq/kg.

**ERMA**
Signatory of the European Raw Materials Alliance in 2020 to foster a virtuous cycle for the supply of raw materials.

**33%**
All new vehicles worldwide to be made with 33% recycled materials by 2030.
ACTION #7

Strengthen Renault Group’s circular economy leadership

WHY?

The circular economy is an essential tool in the fight against climate change. Concrete action is taken at every step in the value chain, from the vehicle’s eco-design (rational use of resources) to end of life (reuse and recycling). Already an industry leader in integrating recycled materials into new vehicles, Renault Group will further accelerate its engagement in this activity and make it a significant driver of its competitiveness and growth.

HOW?

In 2021, Renault Group began transforming its Flins site to create the Re-Factory, an open ecosystem whose aim is to become the European leader in the circular economy dedicated to mobility. Re-Factory is structured around four areas of activity that interact to amplify the action taken and its measurable results.

RE-ENERGY
Optimizing battery use, second life and recycling. Management of renewable energies.

RE-CYCLE
Development of the dismantling industry for end-of-life vehicles, refurbishment or reuse of parts and material recycling.

RE-START
Research, training and innovation in the circular economy.

RE-TROFIT
Reconditioning of used vehicles, fleet maintenance (Zity), conversion of ICE vehicles to electric or biogas and battery repair.

AND BEYOND

120,000
Yearly number of vehicles able to be retrofitted on Re-Trofit lines by 2030.

3,000
Target for specialized jobs at the Flins Re-Factory by 2030.

> €1 billion
Target for business volume from Renault Environnement and the Re-Factory ecosystem, including joint ventures in which Renault Group is not a majority shareholder (Boone Comenor Metalimpex and INDRA).
ACTION #8
Halve our sites’ emissions by 2030*

WHY?
Beyond the issue of constantly fluctuating fossil fuel prices, the transition to low-carbon energy and the reduction of consumption are pivotal to shaping the climate trajectory and driving competitiveness (energy savings).

HOW?

5 DRIVERS
1. INDUSTRIAL FOOTPRINT
   - More compact plants (smaller spaces to light and heat).

2. PROCESSES
   - Developing more energy-efficient manufacturing processes.

3. ENERGY MANAGEMENT 4.0
   - AI-powered tools to analyze data and manage consumption.

4. REDUCING ENERGY LOSS
   - Recover and reuse of energy (especially for heat/ventilation/manufacturing process).

5. RENEWABLE ELECTRICITY
   - 100% of our sites powered by renewable energy in France, Spain, Slovenia and Portugal by 2030.

AND BEYOND

TOP 3
Renault Group will remain in the top three best-performing global manufacturers in terms of factory GHG emissions in 2030.

2030
The milestone for carbon neutrality at all European sites (2025 for sites and activities involved in the manufacturing of electric vehicles at the “Electro pole” in northern France).

2021
Expansion of the energy conservation and efficiency initiative to include tertiary and logistics sites.

*Compared with 2019 (Scopes 1 & 2)
ACTION #9
Reduce emissions from the transportation of parts and vehicles by 30% by 2030*

WHY?
In 2015, Renault Group was one of the first companies to join the FRET21 initiative. It unites the community of shippers in efforts to reduce the carbon footprint of freight. In 2019, the Group was awarded the EVE Trophy by ADEME for the biggest improvement in reducing CO₂ emissions from transportation. Today, it is working to further reduce the carbon footprint of transportation and logistics platforms.

HOW?

1. Biogas and biofuel trucks deployed as of 2021, followed by electric and hydrogen-powered trucks, starting in 2025.
2. Scaling up multimodal transportation, in part by increasing the share of rail freight.
3. Reducing the number of kilometers traveled per cubic meter of freight, by using versatile new trucks and optimizing loads.
4. Rational management of packaging: reducing its weight, returning used packaging, minimizing waste and increasing the share of recycled material in packaging.

2021-2030 ACTION PLAN
BUILT ON 4 PILLARS ACROSS THE LOGISTICS CHAIN:

AND BEYOND

NEW ACTIVITIES
More emissions avoided through the development of packaging recycling activities by the Group and its suppliers.

MARITIME TRANSPORTATION
Partnership with NEOLINE, a French startup developing wind-powered cargo ships (pilot tests as of 2023).

*Compared with 2019 (well-to-wheel)
PULLING TOGETHER TO SUCCEED
“Building on the best open innovation ecosystems to maximize the usefulness of cars while minimizing their environmental impact.”

Why must we act now to reinvent the car?

CLOTILDE DELBOS — User demands and mobility habits are changing. Our customers are looking for fit-for-purpose mobility solutions that will optimize the cost of their journey, using vehicles that are more friendly to the environment. The automotive industry needs to reinvent itself to meet their expectations, or others will seize the opportunity. It is up to us to deliver low-carbon, flexible mobility solutions to suit all types of customers. To make the most of our natural resources, we must build these solutions around vehicles made mainly with materials from the circular economy. Mobilize, a business unit newly created by Renault Group, will help to meet this challenge and enable the Group to reinvent itself by offering flexible mobility and energy-related services.

How does Mobilize contribute to Renault Group’s climate goals?

— To rein in global warming, cars must reduce their greenhouse gas emissions. How do we achieve this? By promoting the transition to electric vehicles while optimizing and extending battery life. Our goal at Mobilize is to create sustainable ecosystems that combine electric mobility with smart charging and the second-life reuse of batteries for storing renewable energies. These solutions will contribute to regional carbon neutrality goals and Renault Group’s climate ambition.

Today, to achieve success, you need partners. Who do you work with?

— We are facing a structural and societal transformation that compels us to work in partnerships and create synergy at every level. We intend to build on the best ecosystems to maximize the usefulness of cars while minimizing their environmental impact. We will achieve our goal by combining our expertise with that of other mobility and energy players, public authorities and tech startups and partners – in particular through Software République – to create innovative data, energy and mobility services.

To support this transformation and make it a success, the engagement of every Group team is essential. Only by working together to pull all these levers can we achieve our carbon neutrality ambition.
**ELECTRICITY, A CORE DRIVER OF THE ENERGY TRANSITION**

The International Energy Agency has estimated that “the share of electricity in final energy consumption will exceed 30% by 2040 and reach almost 50% by 2070”. In transportation, electricity will overtake oil as the main source of final energy in 2050. This shift means that low-carbon production of electricity must be massively increased to ensure that electric vehicles are fully contributing to CO₂ emissions reduction. On the consumer end, the industry must ensure the wide availability of charging infrastructure, energy storage solutions and innovative technologies like smart charging. Car manufacturers must also deploy value chains to supply low-carbon batteries.

**COORDINATED ACTION BY ALL ENERGY AND MOBILITY PLAYERS**

The development of new energy industries and cleaner transportation solutions calls for a common strategy by energy producers, energy network managers, battery manufacturers and carmakers. Equally critical is the support of public policymakers, through regulations encouraging low-carbon energy use and production, electric mobility and innovations in sustainable technologies. In addition, the massive deployment of charging infrastructure will eliminate a major obstacle to the purchase of electric, hybrid, natural gas and LPG vehicles.

**CONCRETE ACTION**

- **Promoting renewable energies**: Developing stationary storage is at the heart of the SmartHubs project being carried out in the United Kingdom, in partnership with Connected Energy, the world leader in energy storage. It uses second-life battery systems to supply low-carbon energy for housing, transportation equipment, infrastructure and local businesses.

- **Facilitating charging**: The INCIT-EV project, initiated and coordinated by Renault Group, brings together 33 industry players, universities, cities, startups and SMEs to gain insights into consumers’ needs and constraints and how to integrate new technologies into charging infrastructure. By 2023, a range of real-life solutions (high-power, inductive, hub, etc.) will be tested in six countries. —

Pharre is a joint project by Renault and Bouygues Énergies & Services to test a smart energy storage and management system using KANGOO batteries, at the headquarters of SyDEV*.  

*Syndicat Départemental d’Énergie et d’équipement de la Vendée (France)
The Green Deal announced in December 2019 aims to make Europe a climate-neutral bloc by 2050, by mobilizing a massive investment plan and regulatory incentives. It puts a special focus on mobility, with a goal of 13 million electric vehicles on the road and 1 million public charging points by 2025. How will this be achieved? What is the timeline? Renault Group and the Public Affairs department are taking an active part in the discussions with European institutions.

TOGETHER WITH PROFESSIONAL AND TRADE ASSOCIATIONS

- **The CCFA (Comité des Constructeurs Français d’Automobiles) and the PFA (Plateforme Automobile)** represent the automotive industry in its dialogue with French and European legislators. The PFA shares industry research, presents a common position and develops potential trajectories.

- **SCORELCA** is a collective research initiative by major French industrial groups including Renault Group to promote and organize life cycle analysis research and quantify the environmental impact of new climate solutions.

- **The European Platform for Electro-mobility** has over 40 members, including transportation and energy players, professional associations and NGOs. Their shared objective is to decarbonize the transportation sector by increasing the share of electrified mobility and deploying charging infrastructure.

**The GBA (Global Battery Alliance)** is a coalition of 70 leading industry players such as Renault Group, public institutions, international organizations, NGOs and academics. It aims to establish a sustainable battery value chain and develop a battery passport as a solution to enable data traceability and resource efficiency across the battery life cycle.

**TOGETHER WITH CITIZENS**

Consumer-citizen behavior is central to the construction of possible and desirable futures. But consumer-citizens do not all have the same expectations or motivations with respect to climate change. According to the ZEN 2050 report published by EpE* in partnership with 27 companies from all industries, the desire to live in a healthier, more environmentally friendly world combined with an easier access to low-carbon infrastructure, products and services will ultimately result in an overall transformation of mobility, housing and consumption behaviors, accompanied by a significant decline in household CO₂ emissions.

Staying on the trajectory of limiting global warming to 1.5°C means converging regulatory frameworks, individual behaviors and technological solutions.

In 2019, the PFA and the Bipe-BDO research firm published a joint market forecast study on the light vehicle market in Europe, per type of powertrain, from 2018 to 2035. It focused in particular on new powertrains: electric, fuel cell, natural gas and LPG. *Entreprises pour l’Environnement*
TOGETHER WITH THE
ELLEN MACARTHUR FOUNDATION

Renault Group is a founding member of the Ellen MacArthur Foundation (EMF), which it has supported for ten years. Together, they are working to shift from the legacy, linear “take, make, waste” model to a circular model in which waste is eliminated, resources circulate and nature is protected. The Foundation communicates with decision-makers around the world about the crucial role of the circular economy in fighting climate change but also about the opportunities it delivers for economic resilience and growth.

Renault Group is harnessing the three main circular opportunities identified by the Ellen MacArthur Foundation: using innovation and eco-design to extend the life of parts and vehicles, encouraging car sharing and reducing the weight of vehicles. Their combined effect would reduce global CO₂ emissions from use of materials in passenger car production by 70% by 2050. This scenario implies a systemic change in the world of mobility.

Product manufacturing processes and uses must transition towards a sustainable new industrial model.

“To resolve global issues such as climate change, we need to transform the way the economy functions. By working together, we can create an economy that eliminates waste, keeps resources in circulation and regenerates nature — a circular economy.”

ELLEN MACARTHUR,
CHAIR OF THE ELLEN MACARTHUR FOUNDATION

TOGETHER WITH BUSINESSES AND STARTUPS

Renault Environnement coordinates metal recycling and recovery of end-of-life vehicles through its three subsidiaries: GAIA (wholly owned by Renault Group), INDRA (a 50-50 joint venture with SUEZ), Boone Comenor Metalimpex (held jointly with SUEZ, 33% ownership by Renault Group).

Renault Group also collaborates with the industrial groups Veolia and Solvay for the closed-loop recycling of electric vehicle battery materials to save resources, reduce carbon emissions and create value across the chain.

At the Re-Factory in Flins, France, Renault Group will launch an incubator open to outside partners (startups, academics, business groups, local authorities, etc.) to develop projects “in vivo”, right at the heart of a large industrial facility. —

“At Station Flins, we will explore new areas with people from a variety of backgrounds. Movin’On can bring its skills and experience to the table to make the most of this diversity.”

ERIK GRAB,
MOVIN’ON FOUNDER AND ACTIVATOR, VICE PRESIDENT STRATEGIC ANTICIPATION & CO INNOVATION, MICHELIN GROUP
Our teams are already at work to achieve our carbon neutrality ambition in Europe by 2040 and worldwide by 2050. Renault Group can build on this strong base of talent and their combined efforts to meet the climate challenge.
In June 2017, the Task Force on Climate-related Financial Disclosures (TCFD), created by the Financial Stability Board¹, published its recommendations on the climate change information to be published by companies. The Group has supported this initiative since 2019 and uses the TCFD’s recommendations as a frame of reference for communicating to its various stakeholders about issues surrounding the transition to a low-carbon economy.

The expert guide presents Renault Group’s progress in implementing these recommendations. It complements the Universal registration document 2020 and the Group’s responses to the “Climate Change” and “Water Security” questionnaires published by the CDP (formerly the Carbon Disclosure Project). These responses are public and may be accessed at www.cdp.net.

¹. The Financial Stability Board (FSB) is an organization whose members represent the finance ministries, central banks and other financial authorities of 24 countries.
A key mission of the Board of Directors is to define strategies that integrate social and environmental considerations and to ensure their effective implementation. Each year, the Board of Directors examines issues related to climate change and validates Renault Group’s strategy to reduce greenhouse gas emissions, its electrification strategy and the impact of new greenhouse gas emissions and pollution regulations.

To explore environmental issues in depth and reinforce their governance, in 2019 the Board of Directors set up a specialized committee focusing on a range of topics, including ethics and corporate social responsibility issues: the Ethics and CSR Committee. Independent directors account for 66.7% of the committee’s members, in line with the recommendations of the AFEP-MEDEF Code. On March 31, 2021, the committee was made up of five members designated by the Board of Directors. The BOD appoints the committee’s Chair from among the independent directors, upon recommendation by the Governance and Compensation Committee.
The Ethics and CSR Committee is mainly tasked with:

- ensuring a high level of commitment in terms of extra-financial compliance, ethics and social and environmental responsibility;
- reviewing and assessing procedures for reporting and controlling non-financial indicators (environmental, health and safety indicators and workforce-related reporting);
- receiving, every year, the presentation of the risk-mapping of the Group relating to ethics, social responsibility and sustainable development; the Board of Directors reviews the risks and opportunities identified and is kept informed of their evolution and the characteristics of the related management systems;
- reviewing reporting, assessment and control systems to ensure that the company is able to provide reliable non-financial information and, in particular, issue an opinion on the declaration of extra-financial performance that must be published in accordance with applicable law;
- working to ensure that the Group takes into account extra-financial issues and long-term outlooks;
- promoting ethics and ensuring that ethical rules are harmonized within Group entities and monitoring their application.

The Ethics and CSR Committee meets at least twice a year and coordinates its work with that of the other specialized committees of the Board of Directors, in particular:

- the Audit, Risks and Compliance Committee (CARC), for matters relating to internal control, compliance, risk analysis and management (including of climate-related risks) and non-financial information;
- the Strategy Committee, for matters relating to ethics policy, corporate social responsibility and sustainable development, including carbon neutrality.

In 2020, the Committee notably examined the following topics:

- investors’ expectations with regard to the Group’s environmental, social and governance (ESG) challenges;
- the work undertaken on the Group’s Raison d’Être;
- the materiality matrix and the CSR indicators being monitored;
- the plans to create a specific circular-economy factory (the Re-Factory) in Flins;
- and the Climate Report’s project. —
The Board of Management (BoM) is responsible for defining and implementing Renault Group’s mid-term strategy, within the scope of the guidelines set by the Board of Directors. It is assisted by the CSR Steering Committee created in 2020, which is chaired by the Chief Executive Officer.

The focuses of Renault Group’s environmental policy are debated twice a year and approved by the BoM on the recommendation of the Vice President of Strategic Environmental Planning. The action taken in 2020 is detailed in the Universal registration document 2020.

The Paris Agreement signed following the Paris Climate Conference (COP 21) and all the national commitments published at the time were subjected to an in-depth analysis of their implications for the automotive industry. The associated opportunities and risks were presented to the BoM for inclusion in the Group’s strategy.

At the unveiling of the Renaulution strategic plan in January 2021, the Chief Executive Officer thus presented the reorganization of the Group’s activities around four business units, including the new Mobilize brand. Luca De Meo announced an extensive electrification of vehicle ranges and a scaling up of E-TECH and hydrogen technologies. Mobilize aims to provide flexible mobility solutions and promote a sustainable energy transition.

The Renaulution plan is the foundation of the Group’s strategy to achieve carbon neutrality and grow the value of the circular economy.
To secure its convergence toward regulatory CAFE CO2 emissions targets, in 2019, Renault Group rolled out a tool to forecast CO2 emissions levels for Group registered vehicles in Europe. A specific program team, the CAFE Control Tower, monitors these levels and adjusts the road map for the current and following years accordingly.

The organization of the Climate Project, set up in 2020, complements this governance framework.

The Strategic Environmental Planning department prepares, deploys and monitors the implementation of the environmental policy in all sectors of the company. To this end, it uses a network of representatives who are assigned to all company departments, as well as the expertise network created within the Group in 2010 in areas such as “energy, environment and raw materials strategy”, “vehicle CO2” and “air quality and substances”. These experts provide in-depth knowledge on these strategic topics and implement a cross-cutting approach that has been recognized internally for its rigor and neutrality.

Within each operational department, one or more climate project contributors have been appointed. Their role is to adapt the Group’s climate objectives to each business, build medium- and long-term roadmaps, coordinate action plans and report on performance. Reporting is carried out at operational department level and consolidated by the Strategic Environmental Planning department, for review by the CSR Steering Committee and the Ethics and CSR Committee of the Board of Directors.

Monthly meetings serve to monitor the climate project’s progress across all Group businesses and adjust the action plan, as needed.
In light of the importance of climate issues for the Group, the compensation of corporate officers is tied to a climate-related condition, among other qualitative criteria. The target, introduced in 2013, is “leadership in environmental performance: CO₂ emissions of vehicles in Europe, Renault Group carbon footprint”. More recently, on the recommendation of the Governance and Compensation committee, the Board of Directors proposed to change the compensation policy of the Chief Executive Officer for 2020 and 2021 by adding two new climate-related criteria:

- A condition tied to meeting the European regulatory target for passenger car CO₂ emissions (CAFE standards¹), on which short-term variable compensation is based. The achievement of this target is a financial and reputational issue and a priority for the Group;

- A condition tied to reducing the carbon footprint of Renault Group registered passenger cars and light commercial vehicles worldwide, excluding AVTOVAZ², on which long-term compensation, paid in the form of performance shares, is based. The quantitative targets are a 25% reduction of the carbon footprint in 2022 and a 27% reduction in 2023 compared to 2010. These targets are consistent with the 2017-2022 trajectory and the Group’s greenhouse gas reduction targets for 2030.—

¹. CAFE: Corporate Average Fuel Economy
². AVTOVAZ will be included in the Group’s targets starting in 2024.
Climate-related risks were analyzed and placed in two categories: transition risks, arising from the shift to a low-carbon economy and all the changes that it implies, and physical risks, along with their potential repercussions on business activity and on supply chains. Short-term (<2030), medium-term (2030-2040) and long-term (2040-2050) milestones were established for each risk.

### Identified Climate-Related Risks and Their Impact on Business Activity

#### Transition Risks

<table>
<thead>
<tr>
<th>Category</th>
<th>Short-Term (&lt; 2030)</th>
<th>Medium-Term (2030-2040)</th>
<th>Long-Term (2040-2050)</th>
<th>Description and Impact on the Group’s Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory and Compliance Risks</td>
<td>×</td>
<td>×</td>
<td></td>
<td>CO₂ emissions regulations for vehicles are frequently updated to apply increasingly stringent standards. In Europe, the CAFE emissions target of 95g CO₂/km for new passenger cars as of 2020 was adjusted in 2021 to apply the WLTP standard. In the event of non-compliance, a penalty payment of 95 euros per excess gram per vehicle sold is due. Based on current sales volumes, each excess gram of CO₂/km would incur a penalty of approximately €120 million. Regulatory changes may also introduce traffic bans or restrictions for certain vehicles. These changes may impact R&amp;D costs and/or production costs, arising from the need to adapt our vehicles to the new standards.</td>
</tr>
<tr>
<td>Technology Risks</td>
<td>×</td>
<td>×</td>
<td></td>
<td>The Group is building its offering around lesser-polluting vehicles, in particular by expanding electric vehicle ranges and designing hybrid solutions for internal combustion engines. The introduction of these technologies, which offer different performances in terms of cost, customer service and CO₂ emissions, may not match the market’s expectations and pace of growth. CO₂ emissions reduction targets will also entail the adjustment of industrial processes and the rollout of low-carbon production technologies in the short and medium terms. The necessary modernization of plants to increase their energy efficiency may push up production and R&amp;D costs.</td>
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<tr>
<td>Risks Related to Market Changes</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>Combined with regulatory changes, the transition to a low-carbon economy may bring about behavioral changes among consumers, such as a shift toward smaller or more energy-efficient vehicles or toward shared mobility, more quickly than anticipated. A mismatch between the product/service offering and consumer expectations would expose the Group to a decline in revenues.</td>
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<tr>
<td>Reputational Risks</td>
<td>×</td>
<td>×</td>
<td></td>
<td>Environmental issues (carbon footprint reduction and impact on air quality) are a concern for all stakeholders (employees, NGOs, users, etc.) A mismatch between the Group’s product/service offering and environmental requirements could harm its brand image and negatively influence customer purchasing decisions, leading to a decline in revenues. It could also make the Group less attractive to suppliers. A strong environmental reputation also contributes to attracting talent and increasing employee pride in belonging to the Group. A mismatch could affect employee engagement.</td>
</tr>
<tr>
<td>Workforce Risks</td>
<td>×</td>
<td>×</td>
<td></td>
<td>The accelerated pace of technological change will create a need to update know-how by investing in training and acquiring new skills.</td>
</tr>
</tbody>
</table>

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**ON THE ROAD**

**TO CARBON NEUTRALITY**

37

**APRIL 2021**

group.renault.com
### PHYSICAL RISKS

<table>
<thead>
<tr>
<th></th>
<th>SHORT-TERM (&lt; 2030)</th>
<th>MEDIUM-TERM (2030-2040)</th>
<th>LONG-TERM (2040-2050)</th>
<th>DESCRIPTION AND IMPACT ON THE GROUP’S PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTREME WEATHER</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>Some extreme weather events may disrupt or, in more serious cases, temporarily interrupt the activity of a number of the Group’s production and logistics facilities. An increased frequency or intensity of floods, hurricanes or droughts, combined with higher temperatures and sea levels, can push up risk prevention and maintenance costs, as well as insurance premiums.</td>
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<tr>
<td>EVENTS/NATURAL</td>
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<tr>
<td>DISASTERS</td>
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<tr>
<td>RESOURCE SCARCITY</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>The increasing scarcity of some natural resources, such as water, may directly impact the automotive industry. It may obligle the Group to make investments to reduce its consumption or pay financial compensation to residents living near production facilities or to local communities. Furthermore, the use of new raw materials such as cobalt may generate upward price pressure, as sales of electrified vehicles steadily grow.</td>
</tr>
<tr>
<td>STRUCTURAL</td>
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<tr>
<td>GEOGRAPHIC AND</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>Climate change may lead to structural and geopolitical changes in certain regions. Because the Group has many sites around the world, this could directly impact its activity. Instability in one region or country could require the Group to adjust its industrial strategy. Regional and geopolitical instability can also create weaknesses in the supply chain ecosystem and obligle the Group to reorganize its value chain, pushing up purchase costs.</td>
</tr>
<tr>
<td>GEOPOlITICAL CHANGES</td>
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<tr>
<td>SPREAD OF DISEASES</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>By forcing the shutdown of production facilities or sales outlets, epidemics and pandemics can have a direct impact on sales and manufacturing, and therefore on revenues.</td>
</tr>
</tbody>
</table>

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*Expert Guide on the Road to Carbon Neutrality*
Renault Group’s ability to offer innovative responses to climate risks, exceeding the expectations of transportation sector stakeholders, will also open up new business opportunities and drive competitiveness.

<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>SHORT-TERM</th>
<th>MEDIUM-TERM</th>
<th>LONG-TERM</th>
<th>DESCRIPTION AND IMPACT ON THE GROUP’S PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing new products and services and accessing new markets</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>Combined with evolving CO₂ emissions regulations, new consumer preferences for lower-carbon-emissions products are a major opportunity to develop new products and enter new markets. As a frontrunner in electric mobility and a leading developer of hybrid technologies and complementary solutions such as fuel cells, Renault Group is well-poised to take advantage of these trends. The Group adapts the skills of the workforce by putting in place training sessions about new technology and bolsters its electric vehicle manufacturing capacity with the creation of an “Electro pole” in France.</td>
</tr>
<tr>
<td>Building up the circular economy of mobility</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>Building up the circular economy is not only a core driver of carbon neutrality for the Group, it also underpins the Group’s development of new products and services, especially through its new Mobilize business unit. By contributing to the circular economy, the Group will meet the needs of consumers who want to switch to more sustainable forms of mobility and, at the same time, extend the life cycle of its products.</td>
</tr>
<tr>
<td>Producing energy for own use at sites</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>To meet carbon footprint reduction targets, the Group must adjust its industrial processes and roll out low-carbon technologies in the short and medium terms. In addition to improving the environmental performance of its production facilities, the Group can use this opportunity to reduce its energy bill and its exposure to future increases in fossil fuel prices.</td>
</tr>
<tr>
<td>Strengthening our reputation as a climate change leader</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>Renault Group’s efforts to integrate climate change issues into its strategy are an opportunity to strengthen its reputation as a pacesetter in this area. The Group is the first carmaker to have its greenhouse gas reduction targets validated by the Science Based Targets initiative. It is one of the top three out of the 30 automotive sector companies in the ranking by the World Benchmarking Alliance and CDP published in December 2020. This ranking assesses “how companies integrate climate issues into their strategy, their efforts to reduce greenhouse gas (GHG) emissions and the quality of their management of these emissions”. Renault is also one of the five companies among those ranked whose GHG reduction targets meet the Paris Agreement alignment criteria established by the International Energy Agency. Although it has already established a positive reputation in this area, the Group’s continued efforts to uphold and deepen its commitments can help strengthen the confidence of its stakeholders.</td>
</tr>
</tbody>
</table>
Following the signing of the Paris Climate Agreement (COP 21) in 2015, the Group’s product plan and strategy were redesigned to ensure its contribution to limiting global warming to well below 2°C. This central trajectory underpins the Renaulution strategic plan. An analysis of alternative climate scenarios was also conducted to inform the Group’s risk management strategy up to 2050, with intermediate milestones in 2030 and 2040:

<table>
<thead>
<tr>
<th>SCENARIO DESCRIPTION</th>
<th>1.5°C</th>
<th>3°C</th>
<th>4°C</th>
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<tbody>
<tr>
<td><strong>NEW GREEN DEAL</strong></td>
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<tr>
<td>Transition risks and opportunities</td>
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<tr>
<td><strong>ECO-TECHNO DRIVEN</strong></td>
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<tr>
<td>Transition risks</td>
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<tr>
<td>Physical risks</td>
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<tr>
<td><strong>RETREAT AND FRAGMENTATION</strong></td>
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<tr>
<td>Physical risks including structural, geographic and geopolitical changes</td>
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</tbody>
</table>

Since 2017, climate scenario analysis has been an integral part of the Group’s strategic thinking. These analyses are based on external benchmark data, in particular:

- World Automotive Powertrain Outlook, used by the French automotive industry platform (PFA);
- 1.5TECH and 1.5LIFE scenarios presented by the European Commission on November 28, 2018;
- Energy Technology Perspectives, published by the International Energy Agency (the B2DS, or “Beyond 2°C” scenario).

In 2020, in alignment with the TCFD’s recommendations, the Group expanded and deepened its analysis of climate scenarios and the implications of climate risks on its short-, medium- and long-term performance. The three climate scenarios described above were based on this work and on internal scenarios constructed by the R&D and Strategy departments.
RESILIENCE UNDER THE DIFFERENT CLIMATE SCENARIOS

After identifying climate risks and alternative scenarios, the Group performed an initial analysis to assess the nature and significance of the impacts of each risk on the Group’s short-, medium- and long-term performance, in order to prioritize the issues. The impacts of each risk on performance were assessed according to several criteria, each of which was broken down into sub-criteria for a more granular analysis. This impact analysis is fully integrated into the Group’s risk management process. For example, the tools used to assess climate risk impacts on performance are also employed to conduct an overall analysis of Renault Group’s risks.

The following table is a simplified illustration of an analysis of the climate risk impacts on each business criterion, based on the following scenarios.

### Simplified illustration of the analysis of the financial impact of each risk on the Group’s performance, under each scenario:

<table>
<thead>
<tr>
<th>RISKS AND OPPORTUNITIES</th>
<th>1.5°C SCENARIO</th>
<th>3°C SCENARIO</th>
<th>4°C SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Market size and structure</td>
<td>Revenues</td>
<td>Cost of sales</td>
</tr>
<tr>
<td>Changes to regulations and standards</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Technological changes</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Market changes</td>
<td></td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Reputational risks &amp; opportunities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workforce changes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extreme weather events / Natural disasters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource scarcity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural geographic and geopolitical changes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spread of diseases</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

✗ = strong impact  ✗ = medium impact
EMBEDDING RESILIENCE IN OUR RENAULUTION STRATEGIC PLAN

DEVELOPING INNOVATIVE PRODUCTS, SERVICES AND BRANDS (ACTIONS #1, #2, #3 AND #5)

As a frontrunner in electric mobility and a major developer of hybrid technologies and complementary solutions such as hydrogen fuel cells, Renault Group invests about €2.3 billion in R&D every year. The majority of these resources is allocated to the development of new low-emissions vehicles, powertrains and batteries. R&D activities support the Group’s goal to launch only all electric or hybrid vehicles under the Renault brand by 2025 (Action #1) and to accelerate the deployment of higher performing, low-carbon and reusable batteries (Action #5). Upstream of vehicle projects, between €100 million and €150 million are allocated each year to research and advanced engineering. A significant share of this spending is earmarked for innovations that are specifically aimed at reducing vehicle emissions (by extending the electric vehicle range), which is a regulatory need, particularly in Europe. Another share is allocated to developing battery services (second-life use and smart charging). These initiatives enhance product attractiveness and are a major factor in reducing Renault’s environmental footprint. The creation of an “Electro pole” in northern France, which was announced in January 2021, will build the Group’s largest electric vehicle manufacturing capacity in the world and further reinforce its competitive edge in this sector.

In electric vehicles, the Group has a decade of experience in design, manufacturing, sales and aftersales, as well as a force of 30,000 employees who have been trained in the specific features of these vehicles. With ZOE, KANGOO Z.E. and MASTER Z.E., as well as TWINGO Z.E. and Dacia SPRING since 2020, it has a comprehensive range of electric vehicles on offer in many countries.

The Group also offers hybrid and plug-in hybrid technologies (Action #3), with E-TECH Hybrid for CLIO and E-TECH Plug-in Hybrid for Renault MEGANE, CAPTUR and ARKANA. It plans to deploy natural gas and LPG technologies in Europe and internationally.

Renault is also offering new, complementary solutions based on alternative energies, such as hydrogen fuel cells to equip light commercial vehicles (KANGOO Z.E. HYDROGEN). To reach its goal of leadership in hydrogen-powered light commercial vehicles in Europe by 2025 (Action #2), Renault plans to partner with a North American company, Plug Power, the global leader in fuel cell systems and hydrogen-related services. Through an R&D and manufacturing joint venture created in France, the partnership aims to offer turnkey solutions that include decarbonized hydrogen delivery and refueling stations along with fuel cell-powered light commercial vehicles.

ELECTRIC AND SHARED MOBILITY SERVICES (ACTION #4)

Increasing demand for alternatives to personal cars is driving the development of new mobility solutions aligned with the global decarbonization strategy.

At the start of 2021, Renault Group launched the Mobilize business unit for sustainable mobility. These new services aim to increase the amount of time a vehicle is actually in use (currently 10%), improve the management of residual value by implementing circular economy principles, and support the Group’s ambition to achieve carbon neutrality. The new brand will launch four purpose-designed models for shared mobility in city centers by 2025.

Mobilize will fulfill new mobility needs. For example, it will offer ride-hailing, car sharing, last-mile delivery and on-demand transit. Vehicle use will be charged on a time or mileage basis. Mobilize will also develop an energy ecosystem including facilitated access to charging infrastructure, smart charging solutions, energy storage and battery life cycle management.
BUILDING UP THE CIRCULAR ECONOMY  
(ACTION #7)

Developing the circular economy plays a pivotal role in reducing Renault’s carbon footprint. At the start of 2021, the Group announced the rollout of the Re-Factory plant in Flins, France, which is wholly dedicated to the circular economy. It is structured around four areas of activity: Re-Trofit (extending the life of vehicles), Re-Energy (producing, storing and managing renewable energy), Re-Cycle (optimizing the management of resources) and Re-Start (making innovation accessible to all). The plant transformation plan will be carried out in phases between 2021 and 2024. At the same time, an assessment of the emissions avoided by the new areas of activity to 2030 will be performed.

PRODUCING ENERGY FOR OWN USE AT SITES  
(ACTION #8)

The Group’s objective is to halve its sites’ emissions by 2030 compared to 2019 by adapting industrial processes and using low-carbon energy. In addition to improving the environmental performance of its production facilities, these steps will help to reduce the Group’s overall energy bill. The model factory in Tangier, Morocco, is equipped with a biomass boiler fueled with local agricultural by-products (olive waste and crushed wood from packaging used at the plant, for example). It is also powered by locally produced, renewable electricity, which covers 92% of its energy needs and avoids more than 100,000 metric tons of CO₂ emissions per year. The Group has announced the goal of using 70% renewable energy at all its sites by 2030.

Additionally, incentives offered by governments to promote solar power enabled the Group to undertake large projects to install photovoltaic panels at six French plants, three Spanish plants and the Group’s South Korean plant, in tandem with financial and technical organizations.

The solar panels installed on Renault sites in France, Spain and South Korea cover a total surface area of 86 hectares, or the equivalent of nearly 120 soccer fields. In 2020, the 94 MW of fully renewable electricity that they generate enabled the prevention of more than 30,000 metric tons of CO₂ emissions. In addition to these environmental benefits, with this project, Renault Group was able to protect a large expanse of newly built vehicle storage areas from the risk of hail. This alone represented a cost saving of several million euros.

IMPLEMENTING TOOLS AND PROCESSES TO MANAGE RISKS AND OPPORTUNITIES

MONITORING THE REDUCTION OF CO₂E VEHICLE EMISSIONS

In 2018, the Group created a specific program team, called the CAFE Control Tower, to monitor emissions reduction and adjust the road map to 2022. Starting in 2019, the Group also developed a tool to forecast CO₂ levels for its registered vehicles in Europe. The CAFE Control Tower reports its results to the Board of Management (BoM) every month.

Outside Europe, the Group must meet similar regulatory constraints. In total, around 70% of the Group’s sales worldwide are subject to CAFE-type regulations. The strategy and organization described above enabled the Group to achieve its CAFE targets for passenger cars and light commercial vehicles in 2020.

CO₂e vehicle emissions are also closely monitored via the global carbon footprint KPI. In addition, specific targets are set to ensure that products are competitive in terms of fuel consumption and CO₂e emissions. The BoM reviews these indicators each year to ensure their alignment with short-, medium- and long-term strategy.
MAKING STRATEGIC CHOICES TO MANAGE GHG EMISSIONS REDUCTION

The Group uses an internal carbon pricing (ICP) mechanism to drive the reduction in its CO₂e emissions and internalize the economic cost of its greenhouse gas emissions. This internal price depends on the scope being considered:

- For vehicle projects, the ICP notably takes into account regulations on emissions in use, such as CAFE, and CO₂-related taxation. In Europe, the carbon price is around €450/metric ton;
- For industrial installations, the ICP takes into account multiple factors such as expected changes in the energy market and CO₂e emissions quotas: over half of the Group’s direct emissions are concerned by the EU-ETS quota exchange system, for which the average price in 2020 was around €25/metric ton of CO₂;
- For the supply of parts and materials, an ICP will be introduced in the near future.

Moreover, in the company’s internal process, life cycle assessments (LCA) or carbon assessments are carried out regularly to evaluate the GHG emissions of vehicles and decide between different strategic or technological options for a region or model. These include comparative LCAs of batteries, comparisons of powertrain technologies (electric, plug-in hybrid, hydrogen, LPG, NGV and biogas) and assessing the environmental benefits brought by the circular economy. The prevailing logic in these evaluations is that only those vehicles or services offering mobility with the lowest possible carbon footprint will be successful in the marketplace or be favored by regulations or taxation.

ENSURING SUPPLY CHAIN SECURITY

The Group has set up a comprehensive risk management system for its entire supply chain, from design and development to production, logistics and quality, as well as economic and financial sustainability. Managing supply chain risks, which include physical climate risks, hinges on the coordinated action of several departments (supplier risk management and control and a network of financial analysts), which work closely with operational purchasing managers in the Alliance Purchasing Organization and with other potentially impacted departments (such as engineering, manufacturing and the supply chain). —
To meet the TCFD’s recommendations on climate-related financial disclosures, a working group was created in 2020. Its members represent the various Group departments with strategic added value for the climate project: they include the Head of Risk Management, the Head of Financial Communications, the Strategic Environmental Planning department, and several technical experts. The Climate working group identified the risks related to climate change (including transition and physical risks), built scenarios, assessed the impacts of each risk on Group performance under each scenario and developed action plans.

Its work contributed to Renault’s new strategic plan and informed the mapping of the Group’s major risks. Transition and physical climate risks were identified as triggering factors of several other risks, such as those described in the Universal registration document 2020 (section 1.5.2).

The working group’s publications were also taken into account in producing the risk analysis presented in the Extra-Financial Performance Declaration. This analysis points to climate change, including the impact of changing regulations and standards governing the environmental performance of vehicles, the risks arising from the transition to a low-carbon economy and physical risks as the main risks affecting extra-financial performance.

At the end of 2019 and the beginning of 2020, Renault Group conducted a materiality analysis to identify and prioritize the environmental, social, societal and governance (ESG) issues it will face over the next five years. This analysis consists of comparing an internal ranking of ESG issues with an evaluation of their importance by external stakeholders, in order to identify “material” topics, which are those that will have a major impact on the Group’s ecosystem and its performance over the period under consideration and on which efforts must be focused.

This new materiality matrix updates the 2015 matrix and enables Renault Group to focus its strategy and environmental, social, societal and governance initiatives. Spearheaded by the CSR department, a cross-functional steering committee supervised the methodological approach and the key stages of the project. The new matrix was validated by the Group Executive Committee (now the Board of Management) and by Jean-Dominique Senard.

As in 2015, “Reducing the total carbon footprint” and “Reducing the impact of the use of vehicles on air quality” are Renault Group’s priorities. Internal and external stakeholders expect Renault Group to continue its efforts to reduce greenhouse gas emissions and air pollution due to road transport.—
Identifying and managing risks relating to the environment and to climate change are a part of the Group’s global risk management system, which is supervised by the Risk Management department. The risk management method it applies is based on identifying and assessing risks of any kind, which are then mapped (as mentioned earlier), and on carrying out action plans to deal with these risks, and specifically their net impact and/or probability of occurrence, by means of elimination, prevention, protection or transfer.

Risk management policy is applied at Group level for major risks. It is also rolled out at operating entity level (countries, commercial and/or industrial subsidiaries), for vehicle programs and for global functions.

Level 1 – Group level. The Risk Management department provides an overall view of major risks. Transition and physical climate risks are included in this risk map, not as distinct risks, but as the triggering or aggravating factors of several other risks. The identification and management of climate risks are therefore fully integrated into the Group’s global risk management system.

Under the supervision of the Board of Management (BoM) and the Board of Directors (mainly through two of its specialized committees – Risks and Internal Control, and Audit, Risks and Compliance), the major risk map is updated annually. These updates are closely coordinated with the development of the medium-term strategic plan and its rollout, so that it can include targeted action plans to address operational and strategic risks. The mapping of the Group’s major risks is presented in the Universal registration document 2020.

Level 2 – Operating department level. Operating departments are in charge of managing major risks, which include climate risks. Each major risk is assigned to a “risk owner”, a member of the BoM who handles the management of the risk with their teams and reports on their work to the BoM. For example, the Group’s Prevention and Protection department is in charge of identifying and addressing the risks and opportunities relating to protecting assets from physical risks (such as severe weather events) and to follow up on risk prevention audits with insurers. Risks that relate more specifically to the transition to a low-carbon economy are supervised by the Strategic Environmental Planning department, with the support of the external affairs, manufacturing and logistics departments. These risks are reported on annually to the BoM, which approves the corresponding management strategy and the necessary means to implement it.

Level 3 – Entity level. In all entities involved in business-critical processes, experts are appointed to identify and prioritize risk management solutions and related local opportunities and to oversee their implementation. They directly contribute to the Group’s major risk mapping and management process. —
To manage climate risks and opportunities, Renault Group uses the metrics presented as follows:

### CARBON FOOTPRINT OVER THE ENTIRE LIFECYCLE
- **Objective**: Measures the Group's greenhouse gas emissions. Calculated on the basis of the number of vehicles sold and the Scopes 1, 2 and 3 emissions categories defined by the Greenhouse Gas Protocol (for the complete list, see URD 2020 Appendix 2.6.1.1).
- **Date/Scope**: Over the entire lifecycle.
- **Deadline**: 2022.
- **Performance as of Year-End 2020**: -19.6% (compared to 2010).

### TANK-TO-WHEEL EMISSIONS
- **Objective**: Reduces by 25% in 2022 compared to 2010 (validated in 2017, scope including Renault, Dacia, Alpine and RSM sales).
- **Date/Scope**: Reduce by 25% in 2022 compared to 2010 (validated in 2017, scope including Renault, Dacia, Alpine and RSM sales).
- **Deadline**: 2022.
- **Performance as of Year-End 2020**: -20.2% (compared to 2010).

### CARBON INTENSITY OF SITES
- **Objective**: Reduce by 24% in 2022 compared to 2013 (validated in 2016, Renault Group sites excluding AVTOVAZ).
- **Date/Scope**: Reduce by 24% in 2022 compared to 2013 (validated in 2016, Renault Group sites excluding AVTOVAZ).
- **Deadline**: 2022.
- **Performance as of Year-End 2020**: -14.2% (compared to 2013).

### LOGISTICS
- **Objective**: Reduce by 6% between 2016 and 2022 (validated in 2016, Renault Group sites excluding AVTOVAZ).
- **Date/Scope**: Reduce by 6% between 2016 and 2022 (validated in 2016, Renault Group sites excluding AVTOVAZ).
- **Deadline**: 2022.
- **Performance as of Year-End 2020**: 7.3% (compared to 2016).

### PARTS AND MATERIALS
- **Objective**: Publish LCA reports for new models launched in Europe and critical reviews by an independent expert on the Renault Group website.
- **Date/Scope**: Publish LCA reports for new models launched in Europe and critical reviews by an independent expert on the Renault Group website.
- **Deadline**: 2016.
- **Performance as of Year-End 2020**: Continuous.

Detailed monitoring is performed using the following indicators:

### TANK-TO-WHEEL EMISSIONS
- **Objective**: Measures average CO₂ emissions of new vehicles sold by Renault Group per km. Scopes covered are passenger car sales in Europe and worldwide and all vehicle sales worldwide based on certification data (converted to the WLTP standard).
- **Date/Scope**: Measures average CO₂ emissions of new vehicles sold by Renault Group per km. Scopes covered are passenger car sales in Europe and worldwide and all vehicle sales worldwide based on certification data (converted to the WLTP standard).
- **Deadline**: 2022.
- **Performance as of Year-End 2020**: -20.2% (compared to 2010).

### CARBON INTENSITY OF SITES
- **Objective**: Measures the share of renewable energies (direct and indirect).
- **Date/Scope**: Measures the share of renewable energies (direct and indirect).
- **Deadline**: 2022.
- **Performance as of Year-End 2020**: 20.3%.

### LOGISTICS
- **Objective**: Measures gross emissions linked to upstream transportation (transportation of parts for the Group's manufacturing sites) and downstream transportation (transportation of new vehicles), divided by the total number of vehicles produced.
- **Date/Scope**: Measures gross emissions linked to upstream transportation (transportation of parts for the Group's manufacturing sites) and downstream transportation (transportation of new vehicles), divided by the total number of vehicles produced.
- **Deadline**: 2022.
- **Performance as of Year-End 2020**: 7.3% (compared to 2016).

### PARTS AND MATERIALS
- **Objective**: Assesses the impacts of production of materials and parts for each vehicle. Emissions avoided by using recycled matter in parts and materials.
- **Date/Scope**: Assesses the impacts of production of materials and parts for each vehicle. Emissions avoided by using recycled matter in parts and materials.
- **Deadline**: 2016.
- **Performance as of Year-End 2020**: Continuous.

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(1) The consolidated environmental reporting scope covers all manufacturing sites, together with the main Renault Group logistics, tertiary and engineering sites, excluding the RRG Commercial Network, which comes under a special reporting system.

(2) Average gross emissions (not adjusted for the effects of geographical and model mix) in kg CO₂e/km per vehicle produced linked to upstream transportation (parts for the Group's manufacturing sites) and downstream transportation (transportation of new vehicles), excluding AVTOVAZ.

AVTOVAZ is currently being integrated into the environmental reporting scope. Scope 1 and 2 emissions for its sites are published in the Universal registration document (URD) 2020, page 242.
The Group's ambition for 2050 is to achieve carbon neutrality over the entire product life cycle, everywhere in the world (by 2040 in Europe). To align with this goal, new interim milestones to be reached by 2025 and 2030 were set in early 2021, based on results achieved in 2019 (instead of 2010).

### Manufacturing (Greenhouse Gas Protocol Scopes 1 and 2)

<table>
<thead>
<tr>
<th>METRICS AND TARGETS</th>
<th>STARTING POINT</th>
<th>2025 INTERIM TARGET</th>
<th>2030 TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the carbon intensity of Renault Group sites per vehicle.</td>
<td>2019</td>
<td>–</td>
<td>-50%</td>
</tr>
<tr>
<td>Increase the share of renewables in total electricity consumption at Group sites.</td>
<td>–</td>
<td>–</td>
<td>70%</td>
</tr>
<tr>
<td>Achieve neutrality (net zero emissions) at all sites.</td>
<td>Tangier</td>
<td>“Electro pole” sites in northern France</td>
<td>All sites in Europe</td>
</tr>
</tbody>
</table>

### Carbon Footprint (Scope 3)

<table>
<thead>
<tr>
<th>METRICS AND TARGETS</th>
<th>STARTING POINT</th>
<th>2025 INTERIM TARGET</th>
<th>2030 TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Well-to-wheel emissions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce CO2e emissions per vehicle in Europe.</td>
<td>2019</td>
<td>-35%</td>
<td>-65%</td>
</tr>
<tr>
<td>Reduce CO2e emissions per vehicle worldwide, including the Lada brand.</td>
<td>2019</td>
<td>-20%</td>
<td>-35%</td>
</tr>
<tr>
<td><strong>Parts and materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce the ratio of CO2e emissions per kg of materials.</td>
<td>2019</td>
<td>–</td>
<td>-30%</td>
</tr>
<tr>
<td><strong>Batteries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce greenhouse gas emissions from battery manufacturing.</td>
<td>2019</td>
<td>-20% (ZOE)</td>
<td>-35% (new models)</td>
</tr>
<tr>
<td><strong>Logistics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce well-to-wheel CO2e emissions from logistics activities.</td>
<td>2019</td>
<td>–</td>
<td>-30% per vehicle</td>
</tr>
</tbody>
</table>

The new targets are based on scenarios developed by IEA (SPS-2020) and JEC V5 (2020) for emissions related to electricity and fuel production.
The results for Lada vehicles in 2020 will be published in the Universal registration document 2021.

## AVOIDED EMISSIONS / CIRCULAR ECONOMY

<table>
<thead>
<tr>
<th>METRICS AND TARGETS</th>
<th>STARTING POINT</th>
<th>2025 INTERIM TARGET</th>
<th>2030 TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARTS AND MATERIALS</strong></td>
<td>Reuse strategic materials (Ca, Ni, Li) from the recycling industry in new batteries.</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Increase the share of recycled materials, by weight, in new vehicles manufactured (worldwide Scopes with batteries).</td>
<td>2019</td>
<td>33% (EU)</td>
</tr>
<tr>
<td><strong>CIRCULAR ECONOMY</strong></td>
<td>Increase revenues from circular economy activities.</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

The Group also tracks the following indicators:

- energy consumption of Renault Group's sites divided by the total number of vehicles produced;
- powertrain mix (% of electric or electrified vehicles);
- growth of new activities from Mobilize and their impact on life cycle assessment;
- CDP's Supplier Engagement Rating Leaderboard;
- number of new electric vehicles;
- overall consumption of recycled plastic by the Group (in metric tons).
Since 2005, Renault Group has taken action to reduce the environmental impact of its vehicles throughout their life cycle, from one generation to the next. To ensure that it meets its goals and to monitor its progress, the Group began in 2004 to measure its vehicles’ impact on the environment (and the potential impact on global warming), starting from the extraction of the raw materials needed for their manufacture and until their end of life. Life cycle assessments (LCA) are therefore performed:

- prior to the vehicle design process, to analyze the potential environmental impact and benefits of technological innovations;
- after the design process, to confirm and measure the reduction of environmental impacts from one generation of vehicle to another.

At end-2020, 28 models representing nearly 80% of the Group’s global passenger car sales under the Renault, Dacia, Alpine and RSM (Renault Samsung Motors) brands were thus subjected to a complete LCA. Starting with the launch of TWINGO III in September 2014, all new models undergo a comparative LCA with respect to their predecessor. Each of these LCAs is critically reviewed by an independent expert following the ISO 14040 and 14044 standards, to evaluate, firstly, the methodology used and, secondly, all of the calculations and interpretations made. The LCA reports for new models, together with their reviews, are published online at group.renault.com/en/our-commitments.

The following chart compares LCAs to show the potential impact on climate change of ZOE versus CLIO. It illustrates how electric vehicles can effectively help fight climate change.

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**POTENTIAL IMPACT ON CLIMATE CHANGE THROUGHOUT THE LIFE CYCLE OF ZOE (VS. CLIO):**

The above chart presents the results of the comparative life cycle assessment of new ZOE (2019) and CLIO V (2019), in the form of a comparison by normalization. Normalization consists of measuring the relative weight of the vehicle studied in relation to the environmental impact of an “average” European citizen over a reference year. The results of the LCA illustrate the pertinence of electric vehicles in the fight against global warming: over the entire life cycle, the reduction in greenhouse gas emissions stands at 28% for ZOE compared with CLIO V, based on an average European electricity mix for battery recharging. With the electricity mix in France, the reduction was 64%. Indicators whose relative weight in the normalization is lower are nonetheless useful for identifying and prioritizing the actions to be taken to reduce environmental impacts. Thus, the indicator of potential depletion of mineral resources shows a negative impact related to the manufacture of the electric vehicle traction battery. To meet this challenge, the Group is leveraging various options: maximizing battery use (smart charging, bidirectional charging, second-life uses such as stationary energy storage) and participating in the development of new recycling solutions for active battery materials, thereby helping reduce the need for virgin materials.
CARBON FOOTPRINT* OVER THE PERIOD 2010-2022

CARBON FOOTPRINT PER VEHICLE SOLD IN THE RENAULT, DACIA, ALPINE, RSM SCOPE (10 YEARS, 150,000 KM TRAVELED)

<table>
<thead>
<tr>
<th>Year</th>
<th>CO₂e/veh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>38.0</td>
</tr>
<tr>
<td>2013</td>
<td>33.0</td>
</tr>
<tr>
<td>2014</td>
<td>32.5</td>
</tr>
<tr>
<td>2015</td>
<td>31.5</td>
</tr>
<tr>
<td>2016</td>
<td>31.5</td>
</tr>
<tr>
<td>2017</td>
<td>31.1</td>
</tr>
<tr>
<td>2018</td>
<td>31.3</td>
</tr>
<tr>
<td>2019</td>
<td>30.5</td>
</tr>
<tr>
<td>2022</td>
<td>28.5</td>
</tr>
</tbody>
</table>

-25% trajectory

CARBON FOOTPRINT 2020

- Fuel and electricity (vehicle use): 30.54 tCO₂e per vehicle
- Tank-to-wheel (vehicle use): 69.9%
- Parts and materials: 15.2%
- Sites: 1.3%
- Upstream logistics: 1.2%
- Other: 0.044%
- Downstream logistics: 0.3%

*For a detailed definition, see URD 2020, 2.6.1.1
The Group’s 2030 targets for reducing direct and indirect emissions related to the consumption of energy required for production (Scopes 1 and 2) and the target for reducing emissions related to vehicle use (Scope 3 well-to-wheel) were officially approved by the Science Based Targets (SBT) initiative in March 2019. The SBT initiative arose from a partnership between CDP, the United Nations Global Compact program, the World Resources Institute and the World Wildlife Foundation. The aim is to verify the consistency between greenhouse gas emission reduction targets set by companies and the data from scientific research on climate.

**Scopes 1 and 2 emissions per vehicle manufactured across all sites**

<table>
<thead>
<tr>
<th>Year</th>
<th>Direct GHG emissions excluding stationary air-conditioning facilities (tCO₂e)</th>
<th>Indirect GHG emissions excluding purchased thermal energy (tCO₂e)</th>
<th>Indirect GHG emissions linked to purchased thermal energy (tCO₂e)</th>
<th>Total emissions (tCO₂e)</th>
<th>Emissions per vehicle produced (tCO₂e/vehicle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
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**Greenhouse gas emissions**

- Direct GHG emissions excluding stationary air-conditioning facilities (tCO₂e)
- Direct emissions linked to stationary air-conditioning facilities (measured since 2012)
- Indirect GHG emissions excluding purchased thermal energy (tCO₂e)
- Indirect GHG emissions linked to purchased thermal energy (measured since 2013)
- Total emissions (tCO₂e)
- Emissions per vehicle produced (tCO₂e/vehicle)

*Indicators audited by the independent third party at a reasonable level of assurance: total (Scopes 1 and 2) greenhouse gas emissions for financial year 2020.
METRICS AND TARGETS

DISTRIBUTION OF GREENHOUSE GAS EMISSIONS
BY SCOPES 1, 2 AND 3

SCOPE 3: INDIRECT EMISSIONS

2010-2020 trajectory

-19%


Fuel and electricity (vehicle use)
Tank-to-wheel (vehicle use)
Parts and materials
Logistics
Other

RENAULT GROUP
APRIL 2021
group.renault.com

EXPERT GUIDE
DISTRIBUTION OF GREENHOUSE GAS EMISSIONS
BY SCOPES 1, 2 AND 3
In addition to addressing climate risks and opportunities, Renault Group manages its environmental performance using the following indicators:

**ENVIRONMENT AND HEALTH**

Renault Group actively and continuously monitors scientific and technological developments relating to health issues. It proactively identifies available solutions to reduce the potential impact of its activities on health and to protect living ecosystems.

To meet the major environmental challenges relating to natural resources or health, the Group implements action plans to address a wide range of issues. For example, the Group takes action to reduce the quantity of waste produced, to protect water resources, to manage hazardous chemicals and to reduce volatile organic compound emissions.

It tracks performance indicators to assess the outcome of its actions. The Group publicly reports on its achievements in its annual Non-Financial Performance Statement. For more details, see the URD 2020, page 125 and following.

**BIODIVERSITY**

Renault Group renewed its commitment to the Act4nature International initiative, confirming its support of biodiversity conservation. It implements improvement actions to address four of the five main IPBES* factors affecting global biodiversity: protecting natural ecosystems around the sites of its activities, easing the pressure on resources and forests, preventing air, water and soil pollution and waste, and reducing greenhouse gas emissions.

In 2019, the Group joined the Global Platform for Sustainable Natural Rubber (GPSNR), an organization aiming to improve the environmental and socio-economic performance of the natural rubber value chain. The GPSNR's initiatives include, for example, actions to fight deforestation.

**ISO STANDARDS MONITORING**

In 1995, Renault Group introduced a systematic process for environmental management and continuous improvement at its sites, based on ISO 14001, to reduce its environmental impact and ensure regulatory compliance.

As of 2008, every one of the Group’s 29 industrial sites and its eight main engineering and logistics sites are ISO 14001-certified. The latest version of the standard (2015) is applied across all ISO 14001-certified Renault Group sites.

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*Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*
To validate its climate trajectory and to ensure convergence between shareholder and social values, Renault Group also relies on external evaluation. It thus responds to certain questionnaires from independent extra-financial rating agencies, as long as they are not accompanied by a request for financial contribution: the Group constantly ensures that there is no conflict of interests, real or perceived. It is also part of the composition of several socially responsible stock market indices.

### OUR APPROACH: EVALUATED AND RECOGNIZED

<table>
<thead>
<tr>
<th>Rating agency</th>
<th>Latest results</th>
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<tbody>
<tr>
<td>Carbon Disclosure Project</td>
<td>In December 2020, having submitted its responses to the CDP Climate Change questionnaire, Renault Group obtained an A-rating once again, which keeps it in the “Leadership” category. For more information see: <a href="http://www.cdp.net">www.cdp.net</a></td>
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<tr>
<td>Sustainalytics</td>
<td>Ratings updated in January 2021 rank Renault Group 15th out of 72 car manufacturers by Sustainalytics with a score of 22.3 (medium risk). For more information see: <a href="http://www.sustainalytics.com">www.sustainalytics.com</a></td>
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<tr>
<td>EcoVadis</td>
<td>In August 2020, Renault Group obtained an overall score of 68/100, corresponding to the “Advanced Performance” level. For more information see: <a href="http://www.ecovadis.com">www.ecovadis.com</a></td>
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<tr>
<td>ISS-Corporate Solutions</td>
<td>December 2020. For more information see: <a href="http://www.issgovernance.com/esg/">www.issgovernance.com/esg/</a></td>
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<tr>
<td>Vigeo Eiris</td>
<td>December 2020. For more information see: <a href="http://www.vigeo-eiris.com">www.vigeo-eiris.com</a></td>
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<td>The SBT initiative</td>
<td>Renault Group was the first company in the automotive sector to obtain the validation of its decarbonization targets through the SBT initiative in March 2019. In March 2021, the Group officially joined the list of companies committed to the “Business Ambition for 1.5°C” initiative. For more information see: <a href="https://sciencebasedtargets.org/business-ambition-for-1-5c">https://sciencebasedtargets.org/business-ambition-for-1-5c</a></td>
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<tr>
<th>Organization</th>
<th>Stock market indices</th>
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<tr>
<td>MSCI</td>
<td>In 2020, Renault Group is a component of the MSCI Global Sustainability index series, which includes the MSCI ACWI ESG index, the MSCI World ESG index, the MSCI EM ESG index and the MSCI USA IMI ESG index. For more information see: <a href="http://www.msci.com">www.msci.com</a></td>
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<tr>
<td>Euronext</td>
<td>Renault Group is part of the following indices: Euronext Climate Europe, Euronext Core Europe 100 ESG EWI, Euronext France ESG Leaders 40 EWI, EN Fra Energy Transition Lead 40 EWI and EN Water and Ocean Europe 40 EWI. The company joined the new CAC 40 ESG index when it was created on March 22, 2021. For more information see: <a href="https://www.euronext.com/fr/fr-investor/indices">https://www.euronext.com/fr/fr-investor/indices</a></td>
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<tr>
<td>STOXX</td>
<td>Renault Group is a component of the STOXX Global Reported Low Carbon, the Euro STOXX Climate Transition Benchmark, the Euro STOXX Paris-Aligned Benchmark and the Euro iSTOXX Ambition Climat PAB.</td>
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The Task Force on Climate-related Financial Disclosures (TCFD) published its recommendations on information regarding climate change to be published by companies in June 2017. The correspondence table below identifies the actions taken by the Group in response to these recommendations. In addition to information published in the Universal registration document, this table also refers to the Group’s responses to the CDP “Climate Change” questionnaire, which have taken into account TCFD’s recommendations since 2018. The Group’s responses are public and may be accessed at www.cdp.net.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Recommendations of the TCFD</th>
<th>Renault Group</th>
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| Governance             | Disclose the organization’s governance around climate-related risks and opportunities.       | Climate Report: p.32-33
|                        | a/ Describe the Board’s oversight of climate-related risks and opportunities.                 | URD: 1.5.1, 2.1.6, 2.2.3.A
|                        | b/ Describe management’s role in assessing and managing climate-related risks and opportunities. | CDP: C1, W6                                                                   |
| Strategy               | Disclose the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy and financial planning where such information is material. | Climate Report: p.37-39
|                        | a/ Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term. | URD: 2.2.3.A
|                        | b/ Describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy and financial planning. | CDP: C2, C3, W4
|                        | c/ Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario. | CDP: C2, C3, W7
| Risk Management        | Disclose how the organization identifies, assesses and manages climate-related risks.         | Climate Report: p.45
|                        | a/ Describe the organization’s processes for identifying and assessing climate-related risks. | URD: 1.5.2, 2.1.6, 2.2.3.A
|                        | b/ Describe the organization’s processes for managing climate-related risks.                  | CDP: C2, W3                                                                   |
|                        | c/ Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization’s overall risk management. | Climate Report: p.45-46
| Metrics and targets    | Disclose the metrics used to assess and manage relevant climate-related risks and opportunities where such information is material. | Climate Report: p.47-49;p.51; URD: 2.2.3.A
|                        | a/ Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. | CDP: C4, W8
|                        | b/ Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas emissions and the related risks. | Climate Report: p.52-53
|                        | c/ Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets. | CDP: C4, W8
On the Road

Performance.

To improve its environmental design from the very start, in order to incorporate environmental Eco-design: using a limited set of parts.

Renault and Nissan. Using modular vehicle platforms common to both families is a technology-sharing frequently used.

One on climate change is the most frequently used.

These disclosures are obtained from three questionnaires; the information on the environmental impact of leading companies.

The potential impact of these emissions on global warming is expressed in terms of CO2: equivalent, abbreviated as “CO2e”.

Carbon-free energy: energy that does not generate carbon dioxide emissions during its production, unlike energy produced from burning coal. Renewable energies and nuclear energy are considered to be carbon-free.

CDP: formerly the Carbon Disclosure Project, CDP is a not-for-profit organization that publishes yearly information on the environmental impact of leading companies. These disclosures are obtained from three questionnaires; the one on climate change is the most frequently used.

CMF: the Common Module Family is a technology-sharing concept applied to a series of vehicle platforms common to both Renault and Nissan. Using modular architecture principles, it enables a wide range of vehicles to be built using a limited set of parts.

Eco-design: eco-design incorporates environmental considerations into a product’s design from the very start, in order to improve its environmental performance.

Energy mix: the combination of various primary energy sources used in a given geographic region or organization (country, city, industry, etc.). It includes fossil fuels, nuclear power and renewable energies.

Fuel cell: a fuel cell, hydrogen and oxygen combined to form water, while releasing electricity and heat. This electricity is used to power a vehicle’s electric motor.

GHG: greenhouse gases occurring naturally in the atmosphere. Two of the main greenhouse gases are carbon dioxide (CO2) and methane (CH4). Higher concentrations of greenhouse gases in the atmosphere are a direct cause of global warming.

Greenhouse Gas Protocol: the GHG Protocol is the organization that develops international standards for measuring carbon footprints. It is the world’s most widely used accounting framework for understanding, quantifying and managing greenhouse gas emissions.

Hybrid: a hybrid vehicle uses two forms of propulsion: an internal combustion engine (usually gasoline-powered) and an electric motor.

Renewable energies: energies generated from natural and continuously replenished resources, such as sunlight, wind, water and matter from living animals and plants. Renewable energies include solar power, wind power, hydraulic power, geothermal energy and biomass energy.

LPG: liquefied petroleum gas is a mixture of propane and butane. About 40% of LPG comes from oil refining and 60% from the processing of natural gas.

NGV: natural gas for vehicles is a fossil fuel. It can be found in different forms: compressed (CNG) or liquid (LNG).

“World Energy Outlook”, which provides an overview of the energy industry.

IPCC: the Intergovernmental Panel on Climate Change is an organization of governments, created in 1988 by the World Meteorological Organization and the United Nations Environment Programme. Its scientists provide regular assessments of the current knowledge on climate change, its causes, impacts and options for adaptation and mitigation.

Carbon footprint: a measure of the greenhouse gas emissions generated by human activities. The potential impact of these emissions on global warming is expressed in terms of CO2: equivalent, abbreviated as “CO2e”.

Stationary battery storage: systems designed to store electricity, usually generated by renewable energy, in batteries. These systems can then deliver the electricity on demand.

Tank-to-wheel: CO2 emissions while the vehicle is in use. Also called “exhaust emissions”.

Vehicle to grid (V2G): bidirectional technology enabling the charging of battery electric vehicles (BEV), plug-in hybrid electric vehicles (PHEV) and fuel cell electric vehicles (FCEV) as well as the return of electricity back to the grid.

Waste recovery: transformation of waste that could not be recycled into another product or energy source.

WLTP: Worldwide harmonized Light vehicles Test Procedure. In the vehicle approval process, WLTP is the procedure for measuring pollutant consumption and emissions under conditions more representative of customer use and the diverse nature of vehicle equipment. This test procedure is supplemented by road tests that use the new Real Driving Emissions (RDE) protocol.

Glossary

Biogas: a “green” gas produced by the decomposition of organic matter in an oxygen-free environment. Before it can be used as a fuel in vehicles, biogas must be refined to remove certain elements (carbon dioxide, water vapor and hydrogen sulphide), resulting in biomethane, which is nearly identical to NGV.

Biomass: the energy stored in biomass can produce electricity, using the heat from the combustion or fermentation of matter such as wood, plants, agricultural residues and organic waste.

Renewable energies: energies generated from natural and continuously replenished resources, such as sunlight, wind, water and matter from living animals and plants. Renewable energies include solar power, wind power, hydraulic power, geothermal energy and biomass energy.

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