



# MOBILITY

**AMBITIONS  
FOR THE 21<sup>ST</sup> CENTURY**

Activity and Sustainable Development Report  
2023 — 2024

**Valeo**  
100 YEARS

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In a period of intense transformation for mobility, Valeo is pursuing its own transformation, with the ambition of being its customers' partner of choice for technologies that make mobility cleaner, safer, more diverse and accessible to all. To achieve this goal, we are leveraging our capacity for innovation and our ability to mass produce the solutions developed by our R&D teams. At the heart of the social and environmental issues of our time, here at Valeo we are working day in, day out to make mobility more sustainable.

## Valeo, a leader and pioneer in mobility

Thanks to 100 years of innovation, Valeo works to deliver cleaner, safer and smarter mobility. As a technological and industrial leader, Valeo is a go-to partner for automakers and new mobility players on every continent. The Group is an industrial and technological leader in electrification, driving assistance systems (ADAS), reinvention of the interior experience and lighting everywhere. These four areas of expertise, which are vital to the transformation of mobility, are the Group's growth drivers.



# Leading positions in all our activities

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## POWERTRAIN SYSTEMS

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**No.1**  
**WORLDWIDE**

31.4% OF 2023 GROUP SALES,  
OR €6.9BN

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## COMFORT & DRIVING ASSISTANCE SYSTEMS

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**No.1**  
**WORLDWIDE**

21.4% OF 2023 GROUP SALES,  
OR €4.7BN

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## THERMAL SYSTEMS

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**No.3**  
**WORLDWIDE**

21.4% OF 2023 GROUP SALES,  
OR €4.7BN

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## VISIBILITY SYSTEMS

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**No.1**  
**WORLDWIDE**

25% OF 2023 GROUP SALES,  
OR €5.5BN

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## VALEO SERVICE

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**€2.3bn**

OR 10%  
OF 2023 GROUP SALES

**150+**

COUNTRIES COVERED

# 4 Business Groups positioned to shape the mobility of today and tomorrow

As of April 22, 2024, the former Powertrain Systems and Thermal Systems Business Groups have been merged into a single entity and are gradually being replaced by the new Valeo Power Division. During the transition period, and until all procedures have been completed with the relevant legal and employee representative bodies, the current organization will coexist with the future organization. Valeo is also renaming its two other divisions to reflect the evolution of their activities: the Comfort & Driving Assistance Systems Business Group will be named the Valeo Brain division and the Visibility Systems Business Group, the Valeo Light division.

## POWERTRAIN SYSTEMS

**x6**

Increase in content per vehicle between an electric vehicle and a traditional vehicle

**€6bn**

in orders for high-voltage electrification solutions in 2023

The Powertrain Systems Business Group is at the heart of the electrification revolution, developing and producing powertrain solutions to improve today's electric powertrains, and to shape the electric mobility of tomorrow. Since the integration of Valeo Siemens Automotive, the joint venture created with Siemens, the Business Group has been organized into two product groups – Powertrain Electrified Mobility and Powertrain Systems Driveline. These product groups' teams work closely together to develop and produce comprehensive, fully integrated high- and low-voltage electric powertrain solutions as well as solutions to further reduce fuel consumption and pollutant emissions from internal combustion engines.



## THERMAL SYSTEMS

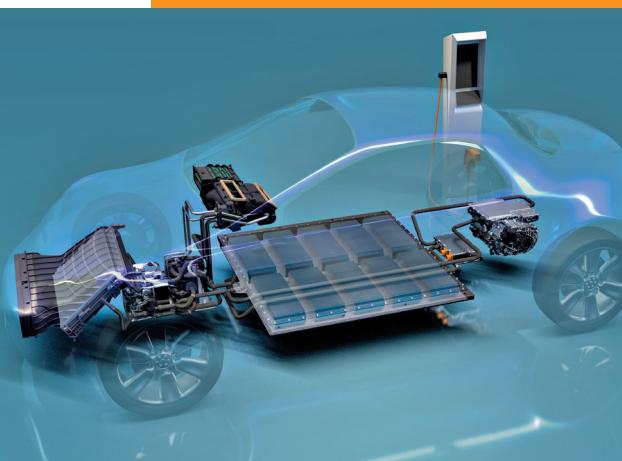
**415**

e-thermal patents in 2023

**x2**

Increase in EV thermal management content compared with internal combustion engine vehicles by 2025

The Thermal Systems Business Group designs and produces smart systems that meet various electric mobility challenges in terms of cost, energy efficiency and usage, primarily to improve vehicle range, charging speed and carbon footprint. The Business Group's field of expertise spans passenger thermal comfort and thermal energy management for batteries, the electric powertrain, power electronics and structural parts affording collision protection.



## VALEO SERVICE

Dedicated to the supply of original equipment spares and services to the car dealer network and replacement parts to the independent aftermarket, Valeo Service, by means of its STEPS strategy, aims to be:  
> a "Smart" partner, providing automotive aftermarket professionals (distributors and repair professionals) with customized and optimized digital solutions;

> a "Trusted" partner thanks to a comprehensive offering of innovative products;  
> a partner offering its customers a "Premium experience";  
> a "Sustainable" partner with the "I Care 4 the Planet" program, launched in 2023, which aims to help reduce the automotive aftermarket's environmental impact.

**~5,500**  
new product references  
were brought to market  
in 2023

## VISIBILITY SYSTEMS

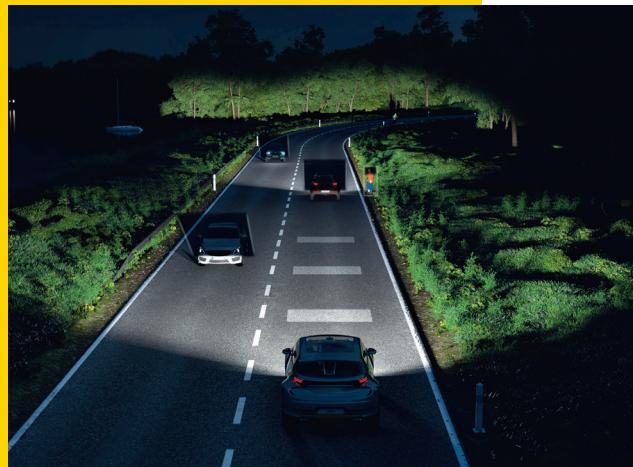
**16%**

Valeo's share in the lighting systems market

**24%**

Valeo's share in the wiper systems market

The Visibility Systems Business Group designs and produces innovative, high-performance smart systems dedicated to exterior and interior lighting and signaling, along with wiper and sensor cleaning systems. These systems assist the driver and improve safety for occupants and road users alike in all situations. Designed to offer the best performance at an affordable cost, all of the systems developed by the Business Group are also optimized in terms of weight and energy consumption, to help minimize the greenhouse gas emissions of internal combustion engine vehicles and to increase the travel range of electric vehicles.



## COMFORT & DRIVING ASSISTANCE SYSTEMS

For safer driving and an enhanced on-board experience, the Business Group is innovating in three key areas: the development of ADAS, the shift from the hardware-focused vehicle to the software-defined vehicle (SDV), and the enhancement of the user experience. With two areas of activity – ADAS and interior experience – at the heart of the SDV revolution, the Business Group is leading the way in the acceleration of ADAS and the reinvention of the interior experience, leveraging all the opportunities offered by the new electric and electronic architectures inherent in SDVs.

**x10**

Outsourced content per vehicle by 2030 driven by the take-up of centralized architectures

**x10**

ADAS content per level 3 vehicle compared with a level 2 vehicle



# A year by your side

## FEBRUARY

### With BMW, toward level 4 autonomy

BMW and Valeo engage in a strategic cooperation to co-develop the next-generation level 4 automated parking experience



## MARCH

### Valeo, No. 1 French patent filer in Europe

Valeo becomes the number one French patent filer with the European Patent Office (EPO), with 588 patent applications filed in 2022, and ranked 31<sup>st</sup> in the global ranking of patent filers in Europe – up 10 places versus the previous ranking, demonstrating Valeo's accelerating innovation.

### Two new contracts for Valeo SCALA™ 3

Valeo secures two new major contracts for its third-generation LiDAR: an Asian manufacturer and a leading American robotaxi company choose its Valeo SCALA™ 3 LiDAR. SCALA 3™ orders now stand at over 1 billion euros.

## MAY

### Triple award for Valeo's aftermarket activity

Awarded "Supplier of the Year" at the Nexus International Business Forum, "Supplier of the Year" by Autodistribution International, and a "Special Recognition Award" by TEMOT: three key players in the independent aftermarket hailed the commitment of Valeo Service's teams in 2023.

## The software-defined vehicle partnership with Renault

Renault group and Valeo announce a partnership to develop the electrical and electronic architecture of the automaker's next generation vehicles. With software-defined vehicle architecture, automakers will be able to offer vehicles that can be kept up to date throughout their lifetime and integrate new features without hardware modification.

## JUNE

### Valeo Canopy, sustainable innovation

Valeo launches Canopy, the first wiper designed to reduce CO<sub>2</sub> emissions, with a rubber blade made from over 80% natural, renewable or recycled materials and 100% cardboard, fully recyclable packaging printed with solvent-free, water-based inks.



## SEPTEMBER

### Valeo joins the software revolution with Valeo anSWer

During IAA Mobility 2023 in Munich, Valeo launches Valeo anSWer, a new range of software solutions and services, to continue supporting its customers in all their projects with its software solutions and hardware, available together or separately. Valeo anSWer is built around applications, middleware and services that are open, scalable and modular.

## Mobileye, next-generation radars for autonomous vehicles

Mobileye and Valeo announce a new partnership for high-definition, software-defined imaging radars designed to meet the needs of next-generation ADAS and automated driving functions.



### OCTOBER

#### Valeo issues a 600 million euro green bond

Valeo successfully completes a 600 million euro green bond issue, with the European Investment Bank (EIB) subscribing for an amount of 150 million euros. The proceeds will be used to finance an identified portfolio of around 2 billion euros in sustainable technology solutions.

### NOVEMBER

#### A major contract in India

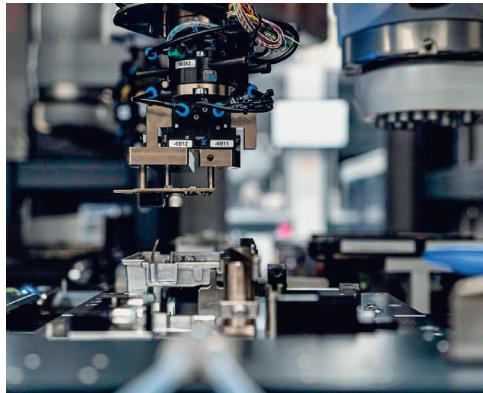
Mahindra & Mahindra (M&M), India's leading SUV manufacturer, has chosen Valeo to supply the electric powertrain for a range from its "Born Electric" passenger car platform, as well as the onboard charger for its electric commercial vehicles. The total order is worth almost 1 billion US dollars.



## Qualcomm and Valeo: solutions for small electric mobility in India

Valeo and Qualcomm deepen their technology collaboration to support small mobility (two- and three-wheels) in India with new solutions for connected displays, clusters, driving assistance and sensor technology.

### DECEMBER



#### Large-scale innovation

The 20 millionth front camera system integrating Mobileye EyeQ® technology leaves Valeo's plants, just 12 months after the 10 millionth front camera system was produced November 2022.

#### For Stellantis, remanufacturing makes all the difference

Stellantis and Valeo celebrate their circular economy strategy cooperation by launching the world's first windshield-mounted camera, remanufactured by Valeo in its Circular Electronics Lab in Nevers.

### AND EARLY 2024

- **Valeo and Teledyne FLIR announce agreement** and first contract for thermal imaging for automotive safety systems.
- **Valeo and Applied Intuition partner** to provide digital twin technology for ADAS simulation.
- At CES 2024 in Las Vegas, **Valeo unveils Valeo Ineez™ Air Charging**, its wireless charging solution for electric vehicles.
- **ZutaCore and Valeo announce their first contract** for data center cooling, a four-year commercial agreement to meet the growing demand for liquid cooling for high-density data center servers.

### One day across the world

All teams at all sites around the world celebrated Valeo's 100<sup>th</sup> anniversary, on the same day and in all time zones. From Turkey to India, via Mexico, France and Egypt, each country in the Valeo community marked the occasion in its own way.



**Celebrating  
100 years by  
your side!**



### Atelier des Lumières

On May 23, 2023, Valeo celebrated its centenary with customers, partners, shareholders and suppliers at a special event held at the Atelier des Lumières in Paris. The former steel foundry, now a Parisian museum of digital art, was the perfect place to celebrate 100 years of Valeo, a pioneer and driver of innovation.



On May 25, 2023, on every continent and in every time zone, the Valeo community celebrated the company's centenary. A look back at this special day.



## Interview with

Christophe Périllat, Valeo's Chief Executive Officer

**“Valeo is fully focused on achieving its Move Up strategic plan, which aims to build a Valeo that is at once technologically stronger,**

### **HOW WOULD YOU DESCRIBE THE GROUP'S 2023 PERFORMANCE?**

In 2023, the Group met all its financial objectives, sustaining the continuous improvement momentum underway since the launch of our Move Up strategic plan in early 2022. Our sales rose by 11%, passing the 22 billion euro mark for the first time, while our original equipment sales outperformed the global automotive market by 3 percentage points<sup>(1)</sup>. We successfully completed negotiations with customers to overcome the major challenge of securing compensation for inflation, and pursued our initiatives to adjust costs. As a result, our margins continued to improve, and we generated 379 million euros in free cash flow for the year. Lastly, we secured a record 34.9 billion euros in order intake,

demonstrating the quality of our technological positioning and the appeal of our innovative solutions for our automaker customers. The margin on these orders largely exceeded the objective initially set in our medium-term strategic plan.

#### **WHAT IS VALEO'S OUTLOOK FOR 2024 AND BEYOND?**

This trajectory for growth and margin improvement will continue well beyond 2023. Today, the entire Group is totally engaged and fully focused on one overarching objective: the success of the Move Up strategic plan, which is building a Valeo that is at once technologically stronger, operationally more efficient and financially more robust. In this respect, 2024 will be a particularly important year when Valeo will accelerate the pace of transformation. The plan to merge our Powertrain Systems and Thermal Systems Business Groups is fully aligned with this strategy, and will enable us to create a more comprehensive, consistent and competitive portfolio of electrified vehicle solutions for our customers. By 2025, the Group should start reaping the benefits from the excellent margins on orders booked since the launch of Move Up.

#### **WHAT ARE THE GROUP'S PRIORITIES IN TERMS OF SUSTAINABLE DEVELOPMENT?**

Sustainable development is embedded in Valeo's DNA and is at the heart of its corporate mission, which is to use its technologies to actively contribute to the development of less carbon-intensive forms of mobility. Valeo is pursuing its transformation to decarbonize all its operations, products and value chain. That's a huge challenge in which we are fully engaged and that we are well on the way to meeting. The Group is also accelerating its commitment to the circular economy, as demonstrated by the recent launch, with Stellantis, of the world's first remanufactured front camera, developed by our circular electronics laboratory in Nevers, France. Lastly, Valeo is actively preparing to comply with the new EU Corporate Sustainability Reporting Directive (CSRD) applicable from January 1, 2024, with initial disclosures in 2025.

**operationally more  
efficient and financially  
more robust.”**



**MOVING YOUR FUTURE**  
Listen to Christophe Périllat explain  
the challenges of the biggest  
transformation the automotive  
industry has ever seen.

(1) Like for like on an adjusted basis.



Gilles MICHEL

## Interview with

Gilles Michel, Chairman of Valeo's Board of Directors

**“All of Valeo’s financial and non-financial commitments were met in 2023.”**

**HOW WOULD YOU DESCRIBE VALEO’S PERFORMANCE IN 2023?**

In 2023, Valeo continued to benefit from its positioning and the acceleration in its markets, particularly for driver assistance systems, software-defined vehicles and electrification. In this regard, the record high order intake attests to the validity of our strategic vision. In addition, all of Valeo’s financial and non-financial commitments were met during the year and, on behalf of the Board of Directors, I would like to express our deepest thanks to Valeo’s teams, whose dedication and excellent work made this performance possible.

**WHAT ARE THE BOARD OF DIRECTORS' PRIORITIES  
FOR 2024 AND BEYOND?**

The Board of Directors will continue to support the Group in deploying its strategy and ensure that it fulfills its commitments, through close, constructive dialogue with Executive Management. Led by people with varied yet complementary backgrounds and career paths and grounded in a solid, trusting relationship, this dialogue is enabling the Board to deliberate smoothly and efficiently, while underpinning high-quality governance practices.

**WHAT ARE YOUR THOUGHTS ABOUT THE GROUP'S SOCIAL  
RESPONSIBILITY AND ENVIRONMENTAL INITIATIVES?**

In 2023, as for a number of years now, Valeo's non-financial performance was recognized by the leading rating agencies, maintaining its position as one of the highest rated automotive suppliers. I'm delighted to see that the Group has become a benchmark in environmental, social and governance performance. That's because one of the Board's constant concerns is to ensure that, in both its strategy and its operations, the Group meets the most demanding social responsibility expectations of its shareholders, employees, customers and, more generally, society as a whole. This is the purpose of the CAP 50 plan, which has set ambitious medium- and long-term objectives for reducing our CO<sub>2</sub> emissions. Since the plan was rolled out in 2021, Valeo has met its reduction objectives every year.

**“On behalf of the Board of Directors, I would like to express our warmest thanks to the Valeo teams, without whose dedication and excellent work this performance would not have been possible.”**

# Governance



## The Board of Directors

at January 2, 2024

The Board of Directors has 14 members (5 women and 9 men), including 11 independent members and two directors representing employees. The Board of Directors determines Valeo's business strategies and ensures that they are implemented effectively. In line with industry best practices, the positions of Chairman of the Board of Directors and Chief Executive Officer have been separated.

**From left to right**

**1. Gilles Michel**  
Chairman of the Board of Directors

**2. Christophe Périllat**  
Chief Executive Officer

**3. Julie Avrane**  
Permanent representative of Fonds Stratégique de Participations

**4. Bruno Bézard**  
Managing Partner of investment fund Cathay Capital Private Equity

**5. Alexandre Dayon**  
Chairman of the Advisory Board of Salesforce

**6. Stéphanie Frachet**  
Partner of the Flex Equity Mid Market fund at European private investment platform CAPZA

**7. Mari-Noëlle Jégo-Laveissière**  
Deputy Chief Executive Officer, Orange Europe (excl. France)

**8. Thierry Moulonguet**  
Director (various companies)

**9. Alexandre Ossola**  
Permanent representative of Bpifrance Participations

**10. Éric Poton**  
Director representing employees

**11. Patrick Sayer**  
Chairman of Augusta

**12. Ulrike Steinhorst**  
Founder of Nuria Consultancy, and director (various companies)

**13. Grzegorz Szlag**  
Director representing employees

**14. Véronique Weill**  
Chair of the Board of Directors of CNP Assurances



## The Executive Committee at January 2, 2024

Chaired by Chief Executive Officer Christophe Périllat, the Committee comprises 13 members, including the corporate Vice Presidents/Chief Officers, the Presidents of the Business Groups and the President of Valeo Service. Its role is to define the Group's strategy, review the operational management of the Business Groups, and coordinate projects.

### From left to right

**1. Catherine Delhaye**  
Chief Ethics, Compliance and Data Protection Officer

**2. Marc Guédon**  
Vice-President, Group Purchasing

**3. Detlef Juerss**  
Senior Vice-President, Sales & Business Development

**4. Xavier Dupont**  
President, Powertrain and Thermal Systems Business Groups

**5. Éric Antoine Fredette**  
General Counsel and General Secretary

**6. Maurizio Martinelli**  
President, Visibility Systems Business Group

**7. Édouard de Pirey**  
Chief Financial Officer since January 2, 2024 (previously Deputy Chief Financial Officer)

**8. Éric Schuler**  
President, Valeo Service

**9. Agnès Park**  
Chief Human Resources Officer

**10. Robert Charvier**  
Advisor to the Chief Executive Officer and the Chief Financial Officer until January 1, 2024

**11. Christophe Périllat**  
Chief Executive Officer

**12. Marc Vrecko**  
President, Powertrain Systems Comfort & Driving Assistance

**13. Geoffrey Bouquot<sup>(1)</sup>**  
Chief Technology Officer and Vice-President, Strategy

**14. François Marion**  
Senior Vice-President, Group Corporate Communications & Investor Relations

(1) As of April 22, 2024, Geoffrey Bouquot, who has left the Group, is no longer a member of the Executive Committee.

# COMM

TO FINDING SOLUTIONS  
TO MAJOR CHALLENGES



# UNITED

In response to the climate emergency, Valeo is developing technological solutions to help its customers shift to low-carbon mobility, while transforming its entire value chain to contribute to carbon neutrality.



# Valeo's commitments to climate change mitigation

The fight against climate change calls for large-scale, effective responses, with measurable, visible results. It calls for concrete, structural actions to make a lasting impact, based on a clearly defined course and genuine ambition.

## IN CONTEXT

**58%**

increase in GHG emissions worldwide between 1990 and 2021, despite a decrease in Europe (-27%) and France (-23%).



#### WHAT VALEO IS DOING

# 75%

reduction in CO<sub>2</sub> emissions across our operating activities (Scopes 1 and 2 as defined by the Greenhouse Gas [GHG] Protocol) and 15% reduction in its upstream and downstream (Scope 3) emissions, in absolute terms, compared with our 2019 emissions.

See pages 26 — 29

# The partners helping us to envision the future

At a time when the automotive world is undergoing an unprecedented transformation in terms of scale and speed, our response to change is to partner with the very best. These partnerships allow us to make joint investments, make the most of our respective resources and expertise, and more quickly deliver innovations that make a difference.

## IN CONTEXT

**75%**

of large corporations state that open innovation is critical to addressing the complex issues they currently face (source: *The Power of Open Minds: How Open Innovation Offers Benefits for All*, report from the Capgemini Research Institute).

**WHAT VALEO IS DOING**

**2,500+**

start-ups screened by Valeo every year

See pages 30 ————— 31

# The talent we need to keep innovating

Electric, autonomous and connected mobility requires new skills and new talent profiles. Professionals specialized in digital technologies such as driving assistance and sensors, automotive cybersecurity and data, are essential to the transformation of mobility, as are professionals in the fields of eco-design, the circular economy and new energies.

## IN CONTEXT

**245,000**

jobs expected to be created in Europe by the triple energy, digital and environmental transition between now and 2035 (source: Roland Berger).

**WHAT VALEO IS DOING**

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**x20**

Increase in number of software engineers  
at Valeo between 2010 and 2023

See pages 32 —— 35

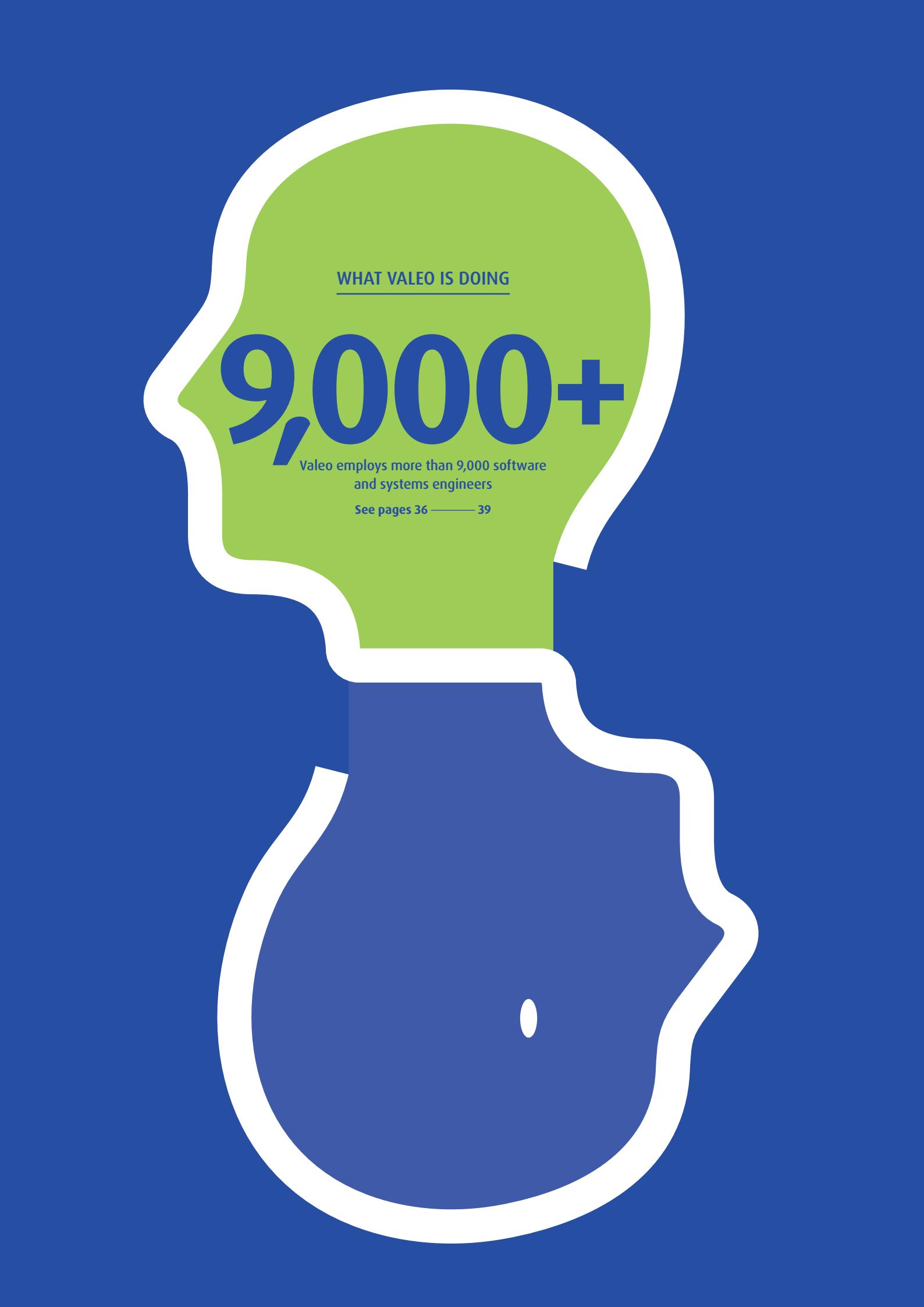
# Using smart technology to transform mobility

Cars are becoming electric, autonomous and connected. This unprecedented revolution increasingly involves the use of software, to the point where the very architecture of vehicles is now defined by software.

## IN CONTEXT

**30%**

That's how much of a vehicle's value will be accounted for by electronics, software and AI by 2030.



**WHAT VALEO IS DOING**

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**9,000+**

Valeo employs more than 9,000 software  
and systems engineers

See pages 36 — 39



# Meeting the challenge of carbon neutrality

With its CAP 50 plan, Valeo aims to contribute to carbon neutrality by 2050 across its entire value chain, including emissions from its suppliers, its own operating activities and the end-use of its products.

The Group has set itself ambitious targets for 2030: reducing greenhouse gas emissions from its operating activities by 75% (Scopes 1 and 2 as defined by the Greenhouse Gas [GHG] Protocol) and reducing its upstream and downstream (Scope 3) emissions by 15%, in absolute terms, compared with its 2019 emissions.

The goals of the CAP 50 carbon plan have been set based on the CO<sub>2</sub> emissions reduction trajectories and benchmarks of the SBTi, which has approved Valeo's 2030 targets for all of its emissions scopes. The plan is aligned with the reductions needed to cap global warming at 1.5°C.

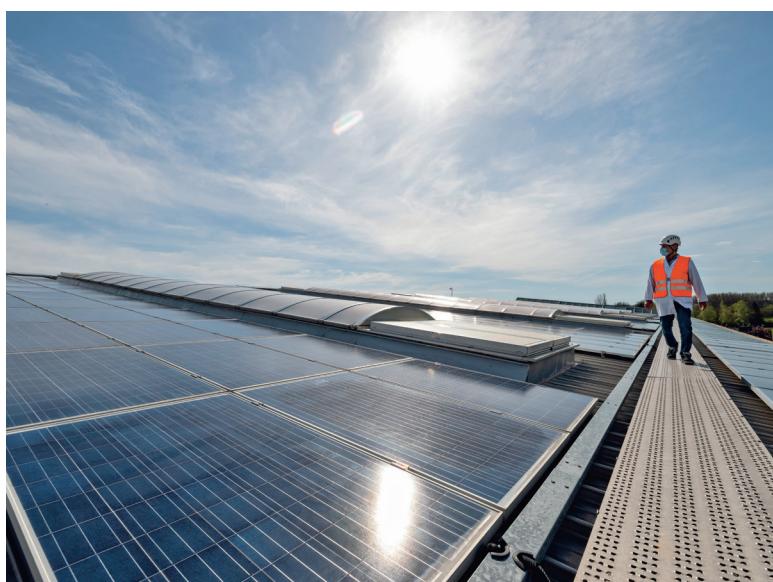
Scopes 1 and 2 correspond to all direct and indirect greenhouse gas emissions related to industrial sites. The goal is to reduce these industrial emissions by 75% by 2030. For a Group with over 170 plants in nearly 30 countries, this calls for a major transformation. Upstream Scope 3 includes greenhouse gas emissions generated before the production phase. Valeo has committed to reducing emissions for this scope by 15% by 2030. Lastly, downstream Scope 3 concerns all greenhouse gas emissions linked to the use of Valeo's technologies from when they are installed in vehicles to when they reach the end of their life. By 2030, the Group is committed to reducing these emissions by 15%, and this reduction should reach 50% when taking into account the emissions avoided thanks to Valeo's electrification technologies.

**44%**  
reduction in Scope 1 and 2 CO<sub>2</sub> emissions  
in 2023 compared with 2019

**12.3%**  
reduction in upstream Scope 3 CO<sub>2</sub>  
emissions in 2023 compared with 2019

**7.2%**  
reduction in downstream Scope 3 CO<sub>2</sub>  
emissions in 2023 compared with 2019

**52%**  
of Valeo sites certified  
ISO 50001



**"As we demonstrated once again in 2023, we are reducing our carbon footprint through highly concrete actions throughout our value chain. Each one marks a further step towards a carbon-neutral future."**

Jean-Luc di Paola-Galloni, VP Sustainability and External Affairs

#### **WHAT PROGRESS HAS VALEO MADE TOWARDS DECARBONIZATION?**

In line with its strategic positioning initiated in 2013, Valeo has further accelerated and strengthened its efforts in 2023, led by the CAP 50 plan. In addition to our goals for 2050, we have also set a particularly demanding intermediate target for 2030, because we're facing a huge challenge. The road transportation sector as a whole is alone responsible for 18% of global carbon emissions.

**REDUCING DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS FROM YOUR INDUSTRIAL SITES IS A MAJOR CHALLENGE. HOW DO YOU PLAN TO MEET IT?**

Our goal is to reduce these emissions by 75% by 2030. Over the 2020-2030 period, we will invest 400 million euros in our sites' energy efficiency and in eliminating fossil fuels from our operating activities. In 2023, we reached an important milestone with the inauguration of a 100% biomass heating system using renewable raw materials at our Ebern-Fischbach plant in Germany.

#### **YOU'RE WORKING ON SCOPE 1 AND 2 EMISSIONS. WHAT ABOUT SCOPE 3?**

By 2030, we are committed to reducing our upstream emissions by 15%. This means making the issue of carbon emissions a shared priority with our entire ecosystem and the automotive industry, including our suppliers, whom we are supporting in their carbon transition, by working with them to develop new products, materials and solutions. Using 80% natural, renewable or recycled materials, the Canopy wiper blade is a good example of this approach, as is Purelight, a headlight concept designed using a circular approach, which contains bio-sourced materials. The challenge, of course, is to incorporate as many of these bio-sourced materials as possible, while maintaining or even improving the properties of the final product.

#### **AND DOWNSTREAM?**

Here, the challenge is to reduce the greenhouse gas emissions linked to the use of Valeo's technologies from when they are installed in vehicles to when they reach the end of their life. To achieve this, we seek to improve the energy efficiency of our products, starting from the design phase, and to develop the use of alternative materials that emit less CO<sub>2</sub>. In partnership with Renault Group, for example, we are co-developing a rare earth-free 800V electric motor with the highest level of performance. This motor, which will go into series production by 2027, will have a 30% lower carbon footprint.

# €400m

invested in the energy efficiency of Valeo sites over the 2020-2030 period





# Accelerating the circular economy

For Valeo, efforts to reduce carbon emissions are already well underway with the electrification of the automotive sector. The next step is to improve the sector's circularity and preserve the planet's resources. Together, the decarbonization and circular economy roadmaps will lead the drive for sustainable mobility. Firmly committed to the circular economy, Valeo has developed the 4R approach (Robust design, Repair, Remanufacturing and Recycle(d)). Why go back to raw materials when we can repair or remanufacture end-of-life products! At Valeo, our mission is to preserve the lifespan of the assembled end product in order to retain as much of Valeo's original product as possible. The first R, Robust design, is dedicated to eco-design, to maximize product lifespan while preserving natural resources. One of our major innovations is an electric motor without rare earths, co-developed with Renault Group. The second and third Rs, Repair and Remanufacturing, will extend the lifespan of products in circulation. Valeo will accelerate and broaden the development of our portfolio of repaired and remanufactured products, which currently covers eight product lines, to support the transformation of vehicles and more. The fourth R, Recycle(d) materials, to be used as a last resort, focuses on building the right ecosystem across the entire value chain to ensure we have sovereignty over certain sensitive materials by exploiting our urban mines.



**"The products that we are bringing to market today are the ones we'll be repairing, remanufacturing and recycling in ten or twenty years' time. That means that the time to design the circular products of tomorrow is now.**

Transitioning from the current linear model to a circular one requires a real cultural shift. The challenge for Valeo is to extend the life of the assembled end product so it retains its value for as long as possible. That's what remanufacturing is all about, extending the lifespan of products that are in circulation today. Remanufacturing is one of the pillars of Valeo's 4Rs program (Robust design, Repair, Remanufacturing and Recycle(d)). While this is nothing new – Valeo has been remanufacturing mechanical parts for over 40 years – we're moving up a gear and extending our commitment to new products such as electronics. But we also need to anticipate future generations of products, as up to 80% of a product's environmental impact is determined during the design phase. That's why environmental design is central to our innovation strategy."

**Mino Yamamoto, Group Circular Economy Director**



2030 target

**2m**

products remanufactured

2030 target

**50%**

polymers in Valeo products recycled  
and 100% by 2050



#### BOLD, QUANTIFIED TARGETS

With 40 years' experience in remanufacturing mechanical products, Valeo is now stepping up the expansion of its portfolio to keep pace with growth in electronics and ADAS. Its REMAN 2.0 program has turned its focus to the electronic product ranges of Original Equipment Spares (OES), from 2023 in Europe. In 2022, Valeo also set up a Circular Electronics Lab for circular electronics project incubation in Nevers, France, enabling it to launch the world's first remanufactured camera with Stellantis in 2023. It uses up to 99% fewer natural resources than a new product. Beyond the automotive sector, remanufactured small mobility products such as e-bike batteries and motors are also in the pipeline. Currently remanufacturing one million products a year, the Group aims to double this figure by 2030, reinforcing its commitment to lowering carbon emissions and preserving raw materials. Lastly, in line with its global sustainable development plan, Valeo has launched "I Care 4 the Planet", an aftermarket program that identifies initiatives to limit the impact of its activities on the environment, and help its professional partners contribute to a more sustainable aftermarket. In recognition of these efforts, in 2023, Valeo received the Jury's Prize at the Zepros Awards de l'Auto for its engagement and actions in terms of sustainable development, CSR and remanufacturing.

#### SUPPORTING EFFORTS TO BUILD A CIRCULAR INDUSTRY

To ensure the transition to a less linear economy is a success, it is essential to develop national and regional collection and recovery circuits for automotive components and raw materials, particularly in mature markets. Valeo is supporting the development of these initiatives. In France, the Group partners with Magnolia, a project that aims to organise an industrial base in France for recycling and manufacturing high-performance sintered neodymium iron boron magnets, a critical component of electric vehicles.



**THE PARTNERS  
HELPING US  
TO ENVISION  
THE FUTURE**

# Working with the best to move up a gear

To advance sustainable mobility and develop disruptive innovations, Valeo develops partnerships and works with its automaker customers and tech players to share expertise. Discover some of these partnerships.

## RENAULT GROUP X VALEO

Renault Group and Valeo are joining forces to develop the E7A, the world's only rare earth-free electric motor, due to be launched in 2027. Renault Group will develop the rotor and Valeo the stator for this more powerful, cleaner and more efficient electric motor. Renault Group and Valeo have also signed a major partnership for the development of software-defined vehicles. As part of this partnership, Valeo will supply key electrical and electronic components for the SDV, including the high-performance computer. Valeo engineers are also working closely with Renault Software Factory teams on software development at Renault Group sites in Guyancourt, Toulouse and Sophia-Antipolis. Valeo will also provide onboard application software, such as parking assistance.



**"Our partnership with Valeo is a perfect illustration of how we work across the electric vehicle value chain, from the motor to software. Thanks to Valeo engineers being situated close to Ampere sites and the use of agile methods, Valeo teams can work closely with our software and systems teams at every stage of the project. For the E7A motor, each company brought its own key component – the rotor for Renault and the stator for Valeo. This high-tech electric motor, which will be produced at our Ampere plant in Cléon, demonstrates the ability of our two groups to be at the forefront of the electric revolution."**

**Philippe Brunet, Senior Vice President EV & Powertrain Engineering, Ampere, a new Renault Group entity specializing in electric vehicles and software**

#### **MOBILEYE X VALEO**



At the end of 2023, Valeo produced its 20 millionth front camera system integrating Mobileye technology. Valeo, the global leader in ADAS, launched its collaboration with Mobileye in 2015, by choosing Mobileye's EyeQ® system-on-chip (SoC) technology for its physical and software front camera system. Since then, the two groups have continued to combine their expertise, developing and producing several generations of front camera systems. In 2023, Mobileye and Valeo also announced a new partnership to deliver software-defined imaging radars. These innovative, high-performance radars will meet the needs of next-generation driving assistance and automated driving features.

#### **"At Mobileye, we are proud of what has been achieved with Valeo to improve road safety worldwide."**

Our collaboration has delivered key safety and advanced driver assistance technologies to over 20 million vehicles worldwide, across a dozen automakers in Europe, Asia and North America. Together, we continue to raise our sights with the aim of taking driving technology and safety to the next level with Mobileye SuperVision™ and the new Mobileye EyeQ®6 system-on-chip. We see great potential on the road ahead for both our companies."

**Nimrod Nehushtan, Executive Vice President of Strategy and Business Development at Mobileye**



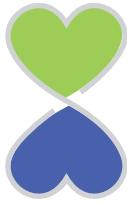
#### **BMW GROUP X VALEO**

In 2023, BMW Group and Valeo took their long-standing partnership to the next level with a new agreement to develop level 4 automated parking technologies. The aim is to jointly develop innovative, premium parking systems that can be used both on private land and in parking lots. BMW and Valeo also jointly presented a demonstration of remote vehicle control at IAA Mobility 2023 and CES 2024, leveraging Valeo's sensors, electronic control units and software expertise to safely drive a car remotely.

#### **"We are very proud to be working with Valeo on automated valet parking and remote vehicle control."**

The working methods of both companies and their technical expertise forged over many years complement each other perfectly. By joining forces, we have achieved positive results very quickly, which means that the first stages of the project have been completed. At IAA Mobility 2023 and CES 2024, we jointly presented a major demonstration of remote vehicle control, which was enthusiastically received by delegates and the press."

**Dr. Mihai Ayoubi, Senior Vice President Driving Experience at BMW Group**



**THE TALENT  
WE NEED  
TO KEEP  
INNOVATING**



# 291

mentees in 2023,  
38% of whom were women

# 3,200

managers already benefit  
from new training programs  
launched in 2023

# 81%

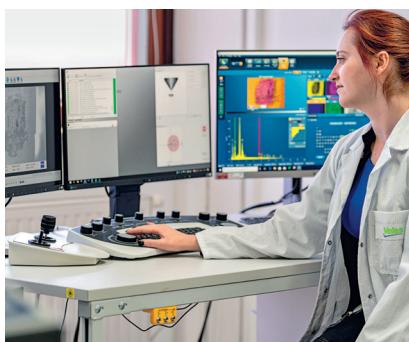
employee participation  
in Valeo's global  
satisfaction survey in 2023

## Attracting new mobility talent

Attracting the highest performers is a key challenge for the Group in a competitive environment undergoing a profound transformation. In 2023, the speed and efficiency of its recruitment procedures enabled it to fill 87% of its 10,000 open positions worldwide. To achieve its growth and development objectives, Valeo relies on its Talent Acquisition Centers (TACs), which bring together, by country or region, all the teams dedicated to finding and attracting talent. The Group has set up a referral program for employees and regularly reports on career opportunities and job vacancies via its website and social media accounts, as well as through partnerships with higher education institutions including universities, engineering schools and business schools.

As part of its commitment to recruiting more women, Valeo organized its first "Valeo Recruits Women" day in June 2023 in partnership with *Elles bougent*, an association that works to help women engineers secure jobs in industrial, scientific and technological environments.

Building customer loyalty is another key challenge. To facilitate the integration of new employees, Valeo has created a portal for Valeo Discovery, its worldwide onboarding program for its managers and professionals. A number of measures are also in place to support internal mobility: country mobility forums, which identify candidates and place them in vacant positions; an annual Career Week; and an Internal Mobility Charter. Finally, a worldwide mentoring program called Grow Together is dedicated to meeting managers' development expectations. In 2023, 577 employees (mentees and mentors) in 22 countries benefited from the program.



**"At a time when competition for talent is fierce, we are fortunate to be able to offer our employees a meaningful role, as part of the sustainable mobility revolution. What's more, by increasing the percentage of women in management and our businesses, we're leading the way to transformation."**

**Agnès Park, Chief Human Resources Officer**

#### **WHAT ARE VALEO'S MAIN HUMAN RESOURCES CHALLENGES?**

Our first challenge is to develop our talents more effectively, by offering employees programs that are both tailored to their needs and consistent with the growth in our business. In terms of strategy, this requires us to be at once highly results-oriented and capable of thinking in 360 degrees, to address all the job levels in our operations worldwide. This means aligning our capabilities with market

needs, particularly technological needs, but also upgrading leadership skills across the managerial chain, in a spirit of inclusion and respect, in line with Valeo's values.

#### **ATTRACTING AND RETAINING TALENT IS BECOMING A MAJOR CONCERN FOR EVERY ORGANIZATION. WHAT IS VALEO'S APPROACH FOR ATTRACTING AND RETAINING THE BEST TALENT?**

When we are hiring, we focus on the many opportunities, particularly in-house, for training and skills development, and on leveraging personal ties and solidarity to support inter-generational skills handover, thanks to our network of more than 2,000 in-house experts and trainers. This is how Valeo, which is celebrating its centennial in 2023, has succeeded in reinventing itself several times despite the constant change in its markets. Valeo is also extremely attentive to the workplace environment, particularly for the production workstations. Lastly, our commitment to decarbonizing mobility is a meaningful aim. By working at Valeo, our employees know that they are contributing to the climate transition.

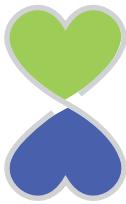
#### **IMPROVING THE REPRESENTATION OF WOMEN WITHIN THE GROUP IS ONE OF YOUR OBJECTIVES. HOW MUCH PROGRESS HAS BEEN MADE?**

The manufacturing industry suffers from a lot of unconscious image bias among women. Together with our industrial peers, we therefore need to gradually reinvent manufacturing, so that it becomes more attractive to women. In 2018, when our indicator was introduced, 16% of our top 300 were women, and we've continued to improve on this, bringing the proportion up to 23.5% by the end of 2023. We are stepping up our efforts again, to reach our target of 32% by 2030. This requires a bolder strategy, one that pushes us to be daring – daring to retain more diversified and less conventional profiles, daring to accelerate the careers of women with less traditional career paths.

**33.1%**

the proportion of women within the Group in 2023





THE TALENT  
WE NEED  
TO KEEP  
INNOVATING

# The people building tomorrow's mobility

**"I joined Valeo as part of an apprenticeship program, with the Research & Innovation team in the Health & Well-being department.**

I was then hired as a thermophysiology engineer. My job is to create the best possible physiological environment inside the vehicle, for drivers and passengers alike. I have since moved into a marketing analyst role, to build the thermal systems strategy for the electric vehicles of the future. I'm part of a multidisciplinary team dedicated to innovation and sustainable mobility."

Morane, Research & Innovation Engineer, France



**"We use Valeo's powerful methodologies to achieve zero defects delivery.**

After graduating, I started working for a small company that supplied parts to Valeo. I was very impressed by Valeo's quality system and it was my dream to join the Group! And now it's come true. We assemble lighting components for a variety of customers. As a system quality engineer, I manage customer requests on the downstream assembly line for these lighting systems. I work on product and process quality to ensure added value for our customers, while ensuring we meet our zero defects goal."

Saminath, Quality Engineer Original Equipment Manufacturers, India



**"My aim is to improve product performance, including environmental performance.**

I left China to come and study mechatronics in France. As electronic design manager, I lead a team of four people in France and three in India. I'm in charge of developing hardware for certain products, particularly those related to electrification. For example, we're working on improving our 48-volt inverter to provide more power and a smoother ride, all while reducing CO<sub>2</sub> emissions."

Danxi, Electronic Design Manager, France



**"Our business is constantly evolving.**

At Valeo Wuhan, I code software that controls engines. The code specifications we work on come from OEMs (Original Equipment Manufacturers). I really wanted to work in the automotive industry and I knew that Valeo was teeming with experts I could continue to learn from. In our field, innovation is the watchword. It's a fast-paced world, and that pushes me to keep improving!"

Pai, Software Architect, China





**USING  
SMART TECHNOLOGY  
TO TRANSFORM  
MOBILITY**



# Innovating for sustainable mobility

Research and Development are central to Valeo's growth strategy and its identity as a technology company. With gross annual R&D expenditure twice as high as capital expenditure, the Group invests over 10% of its original equipment sales in innovation. Its aim is to develop new automotive technology and identify innovative solutions that both anticipate and meet market demands.

Through its capacity for innovation, Valeo is making real progress in making urban mobility safer and more sustainable. Its teams design solutions that reduce vehicle fuel consumption and greenhouse gas emissions, making the Group one of the world leaders in vehicle electrification. As world leader in ADAS, lighting and wiper systems, Valeo devises solutions that minimize the risk of accidents and enhance the driving experience. Valeo's technologies are geared towards the demands and expectations of tomorrow's customers, based on regular in-depth, targeted surveys conducted around the world. Finally, the Group is developing a collaborative approach to innovation, through academic and industrial partnerships with universities and players in the automotive and aerospace sectors worldwide.

# 66

R&D centers worldwide

## 11.8%

of Valeo's sales  
invested in R&D



**"Sustainable innovation is key to our growth and value creation. For us, it is strategically important to maintain a broad lead, because our customers choose us for our technological leadership, coupled with our recognized operational excellence."**

**Christophe Le Ligné, Group Research and Development Vice-President**

#### **WHAT IS VALEO'S R&D PRIORITY TODAY?**

Preparing the transition to greener, more sustainable and safer mobility, by developing affordable technologies that will have a positive impact on a large scale. Valeo has invested heavily in R&D in this area in recent years. We are now reaping the rewards of this strategic anticipation.

#### **WHAT DOES THIS MEAN IN CONCRETE TERMS?**

The technological platforms we have developed enable us to respond to current market trends, particularly in electrification, ADAS and the software-defined vehicle. In the electric mobility market, our innovations focus on both electric propulsion systems and thermal management systems that enable electric vehicles to operate efficiently, for greater sustainability and autonomy. In ADAS, we are making ever greater progress toward automated vehicles, which you can see in the remote vehicle control system we demonstrated with BMW, which enables cars to be parked remotely in complete safety from miles away. This technology, which uses

our sensors, software and control units, will be key to developing automated fleet management in the future, with applications in automaker plants and for robotaxi companies.

#### **AI TOOK CENTER STAGE IN 2023. HOW HAVE YOU INTEGRATED IT INTO YOUR APPROACH?**

We've been laying the groundwork for this fundamental trend for a decade. Ten years ago, there was no real AI in cars. Today, most new cars are packed with software, much of it AI-related. Deep learning and reinforcement learning are key technologies for new advanced functions in autonomous vehicles. The sensors they are equipped with need powerful algorithms to interpret the car's internal and external environment. But AI applications go beyond the autonomous vehicle, and extend across all products and solutions, from thermal systems to lighting and cameras. Valeo anticipated this major shift eight years ago, with the creation of Valeo.ai, an AI research laboratory for automotive applications, linked to the academic world. In 2023, we accelerated in artificial intelligence by signing a partnership with Google Cloud. This collaboration enables Valeo to draw on Google Cloud's technologies, expertise and infrastructures, and focuses on generative artificial intelligence applications across the company.

#### **VALEO HAS AMBITIOUS DECARBONIZATION TARGETS. HOW CAN IT LEVERAGE INNOVATION TO ACHIEVE THEM?**

Our innovation is primarily geared towards this approach. This year, for example, we unveiled Valeo Predict4Range, a software solution that predicts and drives the most efficient thermal management strategies, in order to extend both driving range (i.e., fewer charging stops with faster charging) and battery life. Another example, in a completely different field, is Canopy, the first windshield wiper designed to reduce CO<sub>2</sub> emissions.

Progress is possible in every aspect of our business, and our teams are eager to meet this challenge. This is the thrust of the CAP 50 carbon neutrality plan, which has underpinned our sustainable strategy since 2019, leading to new material research, redesigned products and services as part of a sustainable open innovation approach with our partners and suppliers, and the launch of our circular economy offerings.

# **€2.6bn**

**Group gross R&D expenditure in 2023**





**USING  
SMART TECHNOLOGY  
TO TRANSFORM  
MOBILITY**

More than

**200**

AI experts  
worldwide

Valeo

**No.1**

French patent applicant  
worldwide

Nearly

**20,000**

people dedicated to R&D

# Developing cutting-edge technological leadership

## ACTIVE AND SHARED EXPERTISE

As a tech company, Valeo has more than 18,000 engineers, a network of over 200 artificial intelligence specialists and a global open innovation ecosystem, enabling it to adapt with agility in a rapidly changing environment. Valeo has created a virtual Technical Institute, which brings together more than a thousand experts worldwide, to share and transmit technological skills. Appointed by panels made up of the industrial and innovation directors of the Group's four Business Groups, these Valeo experts work on developing new products and industrial processes, as well as providing in-house training. They also help promote Valeo technologies by teaching in specialist universities, filing patents and publishing and giving lectures.

## AT THE FOREFRONT OF RESEARCH

The Group has 19 research centers worldwide and 47 development centers. The team at Valeo's research and innovation center in San Mateo, California, at the heart of Silicon Valley, designs the future of mobility in the fields of autonomous vehicles, machine learning and artificial intelligence and develops augmented and virtual reality experiences for vehicles. It includes talent from a wide range of backgrounds beyond the automotive industry, including the Internet of Things, video games and connectivity. In 2017, the Group also created Valeo.ai, a research center in Paris dedicated to artificial intelligence for automotive applications, focusing in particular on the fields of assisted driving and autonomous vehicles.

## **"Vehicle passengers of the future will enjoy immersive on-board experiences."**

In the near future, every one of us will spend at least an hour a day immersed in a 3D world. Immersive technologies such as virtual reality, augmented reality and mixed reality have many applications in the automotive industry, for training engineers and operators, for example, and in marketing, with the development of more immersive presentations. But they also have their place inside vehicles, where they will completely reinvent the travel experience. At Valeo, teams including experts in video games and real-time 3D are starting to create tailor-made experiences for the future of mobility. One day, while your electric vehicle is recharging or your autonomous car is driving itself, you'll be able to watch a film from the comfort of a virtual recreation of your living room, or make an immersive video call. This will all be made possible by Valeo's innovative ADAS sensors and cameras, algorithms and AI!"

Ghaya Khemiri, digital, 3D and virtual reality expert



# READ

FOR TODAY'S  
MOBILITY



# Y

For Valeo, the mobility revolution is opening up new frontiers for innovation and conquest in support of a low-carbon world. While the challenge is considerable, so are the opportunities. And Valeo is ready to seize them.



# At the heart of an unprecedented transformation

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The automotive industry is undergoing the biggest transformation in its history. Between technological breakthroughs and the climate emergency, a profound and rapid transformation is underway. Valeo offers its expertise and solutions to mobility players to help them meet this collective challenge.

## A new technological era

The world needs to reduce carbon emissions, and the automotive industry has a major role to play in this decarbonization: land transportation accounts for 18% of global CO<sub>2</sub> emissions. In response to this challenge, the transition to electric cars is accelerating, supported by regulatory measures and, in many countries, government incentives. In 2018, electric and hybrid cars accounted for 1% of global sales. Today, this figure stands at 18%. By 2030, a quarter of the world's vehicle fleet will be electric. This rapid growth is transforming the mobility landscape. In ten years, China has become the world leader in electric vehicles, with five Chinese manufacturers among the top ten. India, the world's fourth largest automotive market, is aiming to become one of the first countries in the world with a 100% electric fleet, although the penetration rate currently remains very low. The boom in low-carbon mobility also requires specific solutions to be developed for two-wheelers, three-wheelers and other small electric vehicles. Lastly, rapid expansion in charging solutions and infrastructure is needed for the electric vehicle sector to develop. The other automotive revolution is just as meteoric: the arrival of the software era. Smarter, more autonomous, more connected – vehicles are integrating more and more software. Automakers are shifting from a hardware-based architecture to the software-defined vehicle (SDV), requiring them to forge closer links with their technology partners. A new era is dawning, with vehicles that are upgradeable, smart, and capable of revolutionizing the travel experience.



## Valeo staying a step ahead

Valeo has been anticipating the revolution of electric and autonomous mobility for over a decade, and is now stepping up its circular economy approach, an inseparable corollary of decarbonization efforts, through eco-design and remanufacturing. Valeo is also accelerating its transformation to support the software-defined vehicle revolution: today, more than 40% of the Group's 20,000 engineers are dedicated to software and systems.

# 25%

of the global automobile fleet will be electric by 2030

# X6

increase in content per vehicle between an electric vehicle and a conventional vehicle

# Today's mobility is electric and sustainable

While helping to reduce CO<sub>2</sub> emissions, Valeo's product portfolio responds to the acceleration of the electric mobility market with a full range of solutions for hybrid and electric vehicles: electric motors, inverters (the "brain" that transforms the current and controls the electric motor), transmission systems, onboard battery chargers and current converters.



Discover the next-generation electric motor, without magnets or rare earths, co-developed with Renault Group.



# €150bn

electrification market in 2030,  
including powertrain and  
thermal systems  
for electric vehicles

# €6bn

orders for Valeo  
high-voltage electrification  
solutions in 2023

## Partner of choice for automakers

For Valeo, the acceleration of electric mobility must take place in a way that promotes sustainability and resource preservation. All over the world, the Group is working towards this ambition with automakers, partners and customers. Currently, permanent magnet motors for electric vehicles use rare earths such as neodymium and dysprosium.

Valeo has joined forces with Renault Group to co-develop, by 2027, a new-generation electric motor without magnets or rare earths, which will be even more efficient and environmentally friendly, reducing the motor's carbon footprint by 30%. Valeo brings its expertise in hairpin stator electric motors to this collaboration. Thanks to its unique know-how, which allows it to use a higher density of copper in the stator, Valeo is able to generate more power without having to use more electrical energy. With this innovation, Renault Group and Valeo will be the first to series produce a 200 kW, 800V electric motor without using rare earths.

In India, Mahindra & Mahindra (M&M), the country's leading SUV manufacturer, has chosen Valeo to supply the electric powertrain for a range from its Born Electric passenger car platform, as well as the onboard battery charger for its electric commercial vehicles. Valeo will set up a site close to the Mahindra & Mahindra plant in Pune, Maharashtra, in order to locally produce the electric powertrain in India. This will include manufacturing the electric motor, its inverter and the powertrain transmission, as well as the bidirectional onboard battery charger with integrated 3-in-1 power electronics, including the current converter and the power distribution box.

## Wireless charging

In the electric vehicle market, charging solutions are becoming a key differentiator. Unveiled at CES 2024 in Las Vegas, Valeo Ineez™ Air is an efficient, lightweight solution for inductive vehicle charging, with no need for charging cables. It uses an ultra-low operating frequency, around 3 kHz, and offers a unique charging experience that's lighter (half the weight of other induction charging systems), simpler and more efficient.



The performance, range and sustainability of electric vehicles depend largely on comprehensive, smart thermal management, an area of expertise in which Valeo is at the forefront.

The world leader in battery cell cooling, Valeo leverages this expertise to offer powerful, integrated cooling solutions. In partnership with TotalEnergies, the Group has developed an innovative, safe and low-carbon immersion cooling solution, using a new, very high-performance dielectric fluid in direct contact with the battery cells. This innovation improves electric vehicles' performance, charging speed and battery lifespan, and reduces their impact on the environment. The immersive battery cooling system offers a number of advantages. It can shorten charging time by up to 30% thanks to rapid, uniform cell cooling or preheating, or, without changing charging speed, operate with a higher-temperature fluid, thus reducing air-conditioning power requirements and therefore compressor size and noise levels as well. In addition, the fluid is contained in housings made of OrganoSheet, a composite material that offers the mechanical properties and light weight of aluminum but has a 50% lower carbon footprint, all while meeting the same safety standards in the event of a collision. Valeo is currently working on the advanced development of this solution with a major European automaker, and plans to make the system available to equip electric vehicles in 2028.



# X3.8

Growth in the  
electrification market  
between 2022 and 2030

# X2

By 2025, an EV will have  
twice as much thermal  
management content as  
a conventional internal  
combustion engine vehicle



## Predict4Range, anti-stress software

Managing battery and motor temperature and maintaining optimum in-vehicle conditions for passengers are essential to maximizing range and battery lifespan, as well as onboard comfort. Valeo Predict4Range software automatically applies the most efficient thermal energy management strategies based on real-time route data (outside temperature, wind speed, map of charging stations, road elevation, etc.) and vehicle parameters (battery cell temperature, electric motor, electronics, cabin, etc.). This enables it to deliver up to 24% more range on a home commute scenario in winter (-7°C), compared with traditional thermal management control, and 100% peace of mind for the driver and passengers.

## Valeo, a leader in thermal management for electric vehicles

Valeo has developed unique expertise in battery thermal management and related thermal systems. Its goal is to produce thermal systems that are lighter and more efficient, so as to reduce both carbon footprint and cost. To reduce the carbon footprint of traditional aluminum battery coolers, Valeo uses, for example, an innovative laser welding manufacturing process for large coolers. This process, which uses 40% recycled aluminum, significantly reduces CO<sub>2</sub> emissions, cuts manufacturing energy consumption by 50% and reduces the weight of each cooler by 20%. Heating, defogging, de-icing and cooling the cabin are also energy-intensive, and can considerably reduce the vehicle's range. Valeo has risen to the challenge by developing more efficient and smart heat pump modules (Valeo Smart Heat Pump) that are compact and centralized and integrate all refrigeration and cooling components, simplifying system integration and freeing up space under the hood. Since 2023, Valeo Smart Heat Pump has been in series production for a major Chinese automaker. Lastly, Valeo has anticipated the forthcoming ban on PFAS in the EU by developing a solution using R744, a natural refrigerant. It will increase vehicle range by 35 kilometers<sup>(1)</sup> in winter, and will be compliant with future EU regulations. A Smart Heat Pump solution based on propane (R290) is also available for manufacturers who prefer this refrigerant.

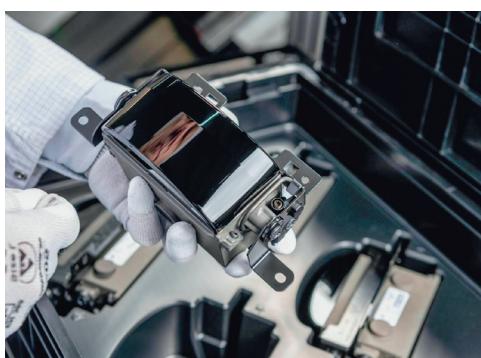
**"Valeo and Lear have joined forces to combine Valeo's HVAC and radiant panel systems with Lear's thermal seat comfort technologies to optimize occupant comfort and user experience, while extending the range of electric vehicles."**

(1) Medium-sized EV with a 70 kWh battery, rated for 400 km at 20°C.

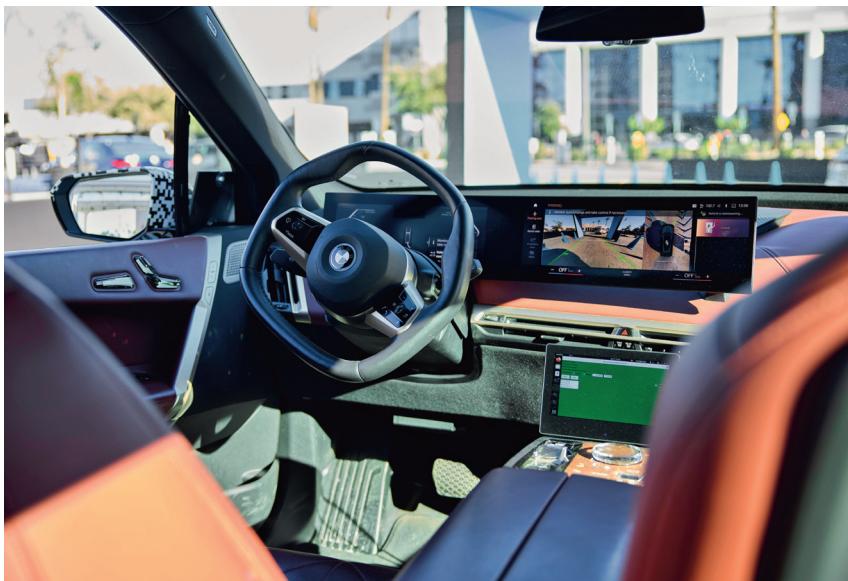
# Today's mobility is increasingly safe and autonomous

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The global leader in driver assistance systems, Valeo offers the most comprehensive sensor portfolio on the market, including ultrasonic sensors, cameras, radars and LiDAR. Valeo is a technological and industrial leader in LiDAR sensors, which are key to the development of autonomous mobility.



Learn more about  
LiDAR technology from  
Clément Nouvel, LiDAR Technical  
Director at Valeo.



## Valeo partners with Pioneer and Qualcomm

Today's vehicle E/E architectures are shifting from highly distributed structures to centralized systems. In response to this market trend, Valeo has teamed up with Pioneer to provide ADAS+ onboard infotainment functionalities on a platform equipped with a single Qualcomm Snapdragon SoC that can support both critical safety and comfort-enhancing features, such as parking and driving solutions and Pioneer's in-vehicle entertainment software suite. In accordance with regulatory developments for ADAS, this integrated system makes it affordable for entry-level cars.

## Valeo, a pioneer in autonomous mobility

A pioneer in the ADAS technologies that paved the way for autonomous vehicles, Valeo signed a strategic cooperation agreement with BMW Group in 2023 for the joint development of an automated valet parking (AVP) system offering level 4 automation, usable both on private land and in public parking lots. All functions will be based on technologies and sensors integrated into the vehicle. The two partners will also develop a range of infrastructure-based services to provide fully automated parking and charging functionalities in public places and parking lots. LiDAR (Light Detection and Ranging) plays a key role in the development of autonomous vehicles. With Valeo SCALATM 3, its third-generation LiDAR scanner, Valeo is at the forefront of progress in this new generation of perception systems essential to autonomous mobility. By recreating a 3D image of the vehicle's surroundings with an as yet unparalleled resolution for an automotive system, Valeo SCALATM 3 enables level 3-4 autonomous driving on highways and in cities, improving both safety and level 2+ functions. In 2023, a leading Asian automaker and US robotaxi company chose the Valeo SCALATM 3 to equip their vehicles. Valeo SCALATM 3 also received the CES 2024 Innovation Award in the "Vehicle Tech and Advanced Mobility" category.

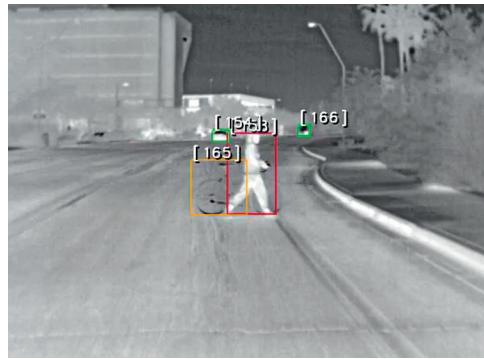


# 20

**millionth**  
front camera equipped  
with Mobileye's EyeQ®  
technology produced in 2023

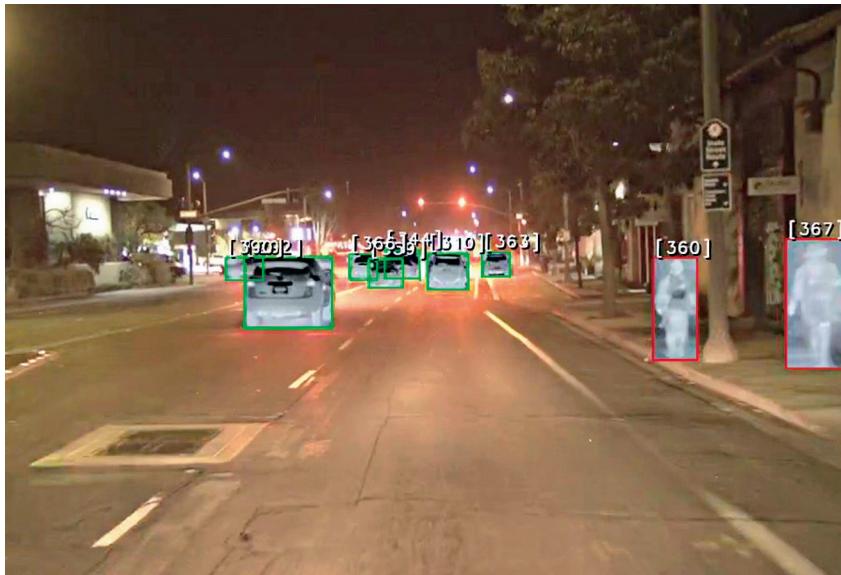
# 1.5

**billion**  
ADAS sensors produced  
by Valeo over the past 30 years,  
and another 1.5 billion  
to be produced over the  
next five years



Through its partnership with Teledyne FLIR to create the world's smallest and most sensitive automotive night vision camera, Valeo is adding thermal imaging to its offering and further improving road user safety.

The use of thermal imaging can significantly improve road safety. Thermal imaging cameras are an essential tool for detecting vulnerable road users, animals, vehicles and the sides of the road in all driving conditions: day, night, sun and headlight glare, fog, smoke, snow, rain and dust storms. In 2023, Valeo started a strategic collaboration with Teledyne FLIR, a subsidiary of Teledyne Technologies Incorporated, to develop the next generation of multispectral sensor fusion systems for automotive safety. The two partners will deliver the first ASIL (Automotive Safety Integrity Level) B thermal imaging technology for night vision ADAS. The system will round out Valeo's wide range of sensors. It will rely on Valeo's ADAS software stack to support functions such as night-time automatic emergency braking (AEB) for passenger and commercial vehicles and for autonomous cars. It will improve the overall performance of driving assistance systems and autonomous vehicles to offer greater safety to road users, particularly at night.



## Digital twin technology for true-to-life testing

Valeo and Applied Intuition, a vehicle software supplier, have partnered to provide a digital twin platform for ADAS sensor simulation. The joint solution will allow automotive equipment manufacturers to bring safe and reliable ADAS features to market faster. The solution will provide automakers with a database representing locations around the world, and an extensive and diversified set of scenarios and environments for conducting ADAS perception and validation testing with greater precision than with traditional simulation systems. The digital twin platform focuses on simulating Valeo's SCALA™ 3 LiDAR and extends to other Valeo sensors for software-in-the-loop (SIL) and hardware-in-the-loop (HIL) testing.



**>90%**  
of new vehicles  
will be equipped with  
ADAS by 2030

**1/3**  
of new cars are  
equipped with Valeo  
ADAS technology

## Making ADAS functions more widely available

As the market for driving assistance rapidly accelerates, Valeo is developing solutions that make technologies enhancing safety for road users accessible to all. A new, scalable turnkey system, Valeo Smart Safety 360, is an integrated, affordable solution that broadens access to ADAS by drawing on Valeo's expertise in sensors and software. Combining ADAS level 2/level 2+ functions that meet GSR1 and NCAP safety standards, it enables automakers to offer these driving assistance, safety and parking assistance functions even in entry-level models. Valeo's Smart Safety 360 also reduces the impact on the architecture and therefore the cost of the vehicle. In this system, the smart front camera is central to the architecture. Depending on the manufacturer's requirements, it can be connected to ultrasonic sensors or radars, and used as an electronic control unit (ECU). The modularity of this approach allows automakers to optimize costs and vehicle architecture by eliminating individual ECUs, since the various types of safety sensors and ADAS are integrated into the front camera.

# 17%

annual growth projected for the ADAS market, expected to reach 60 billion euros by 2030

**"Thanks to Valeo Smart Safety 360, automakers can offer more ADAS features with limited impact on architecture and costs, making the most of technologies already installed in vehicles."**

**Marc Vrecko, President of Valeo's Comfort & Driving Assistance Systems Business Group**

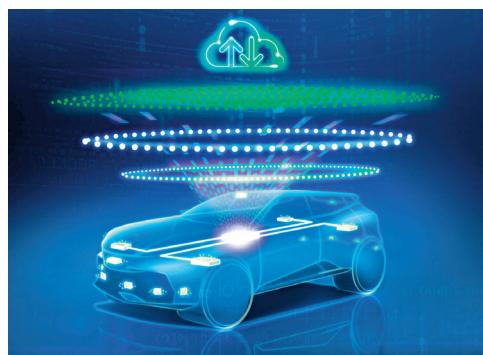
# Today's mobility embraces smart software

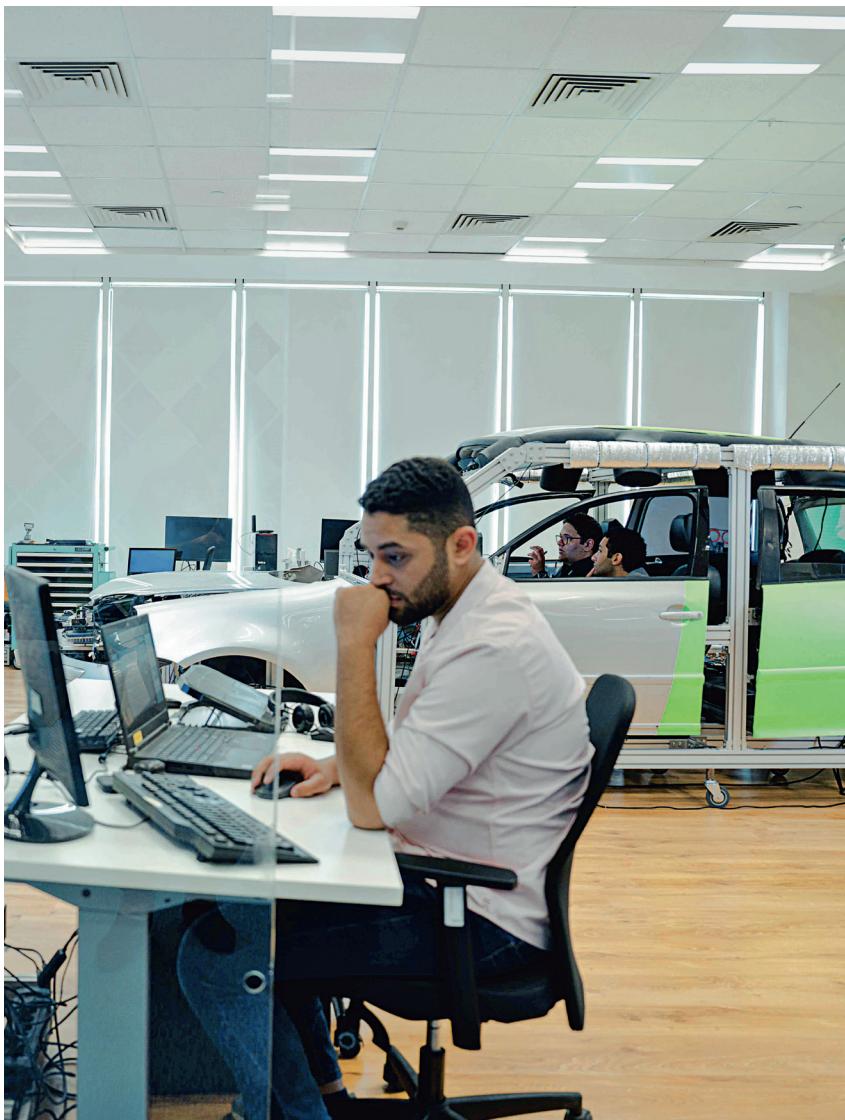
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With the development of autonomous, electric and connected vehicles, the automotive industry is undergoing a profound revolution. Software is at the heart of this transformation, to the extent that automakers are even changing vehicle architecture based on software. Valeo provides solutions to support them in doing so.



Listen to a Valeo podcast  
explaining the importance  
of software in cars.





## Mobility in the software era

For over 30 years, Valeo has been a key player in onboard software solutions, contributing to safer and cleaner mobility. Vehicles are becoming increasingly autonomous and connected, integrating a multitude of sensors and software. In response to these developments, Valeo designs domain controllers, which are essential to the latest vehicle architectures for software-defined vehicles. A pioneer in ADAS systems, the Group designs a modular hardware platform for high-performance onboard computers, based on a centralized electrical and electronic (E/E) architecture that optimizes energy consumption. The platform, which is compatible with chips from various SoC suppliers, includes an AI-based software suite for computer vision, data fusion and vehicle control. Valeo also offers a controller integrating ADAS and the infotainment system, designed for level 2 semi-autonomous vehicles. In 2023, the launch of Valeo anSWer represents a significant step forward: a flexible, scalable and modular solution that encompasses end-user applications, middleware facilitating interaction between applications and the SoC while ensuring security and efficiency, and Valeo's technical support for the design, integration, validation, testing and maintenance of software architecture.

/10

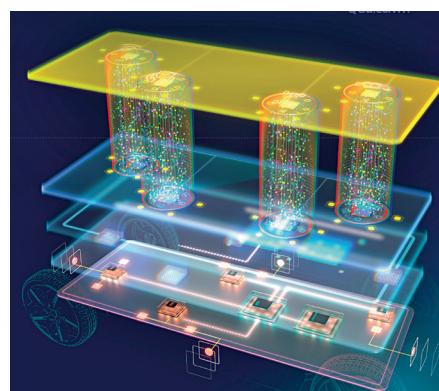
The software-defined vehicle will drive a ten-fold reduction in the number of ECUs in vehicles

30%

The share of software in a vehicle in 2030, versus 10% today

### Developing the software-defined vehicle

In 2023, Renault Group and Valeo extended their collaboration on the software-defined vehicle. Their partnership focuses on developing the electrical and electronic architecture of Renault Group's next-generation vehicles. With software-defined vehicle architecture, automakers will be able to offer vehicles that can be kept up to date throughout their lifetime and integrate new features without hardware modification.



Valeo's ability to offer both hardware and software solutions makes the Group a key technological partner for its customers.

In North America, demand for software-defined vehicles is growing rapidly.

With the opening of a new technical center in Querétaro, Mexico, in early 2024, the Group will have more than 300 engineers specialized in software and systems, and this figure is set to rise to 800 in North America over the next few years.

These expert teams are central to preparing for tomorrow's mobility. Valeo's software engineers are involved in the entire development cycle, from the definition of initial software requirements and their architecture, to their development, validation and deployment. With skills in software, electronics and systems design and validation, the engineers at the Querétaro center will work on a wide range of products, including high-performance ECUs and central computer units, displays, lighting modules and high-voltage electrification systems, throughout the development cycle.



"The Pantomime software, presented at CES 2023, was developed at Valeo's San Mateo research and innovation center. It's an artificial intelligence algorithm that uses the vehicle's cameras to determine whether authorized traffic controllers, such as police or road workers, or cyclists, are in the vicinity. The Pantomime software captures their hand signals and gestures so that the autonomous car can react accordingly."

**Harsha Gorantla,  
R&D project manager**

# \$84bn

the expected value  
of the automotive software  
market by 2030, according  
to a McKinsey study

## First generative AI hackathon for Valeo's teams

Valeo is developing close collaboration with Google Cloud in the field of generative artificial intelligence (AI). The partnership focuses on use cases for application across the Group. Inspired by this collaboration, in November 2023 Valeo organized its first hackathon focused on generative AI, in collaboration with Google Cloud and Artefact, a French company specializing in the deployment of AI technologies and advanced data solutions. The aim of the event was to solve a concrete, topical challenge specific to Valeo and its teams. The hackathon was open to all employees in the 29 countries in which Valeo operates. Involving 460 participants, the hackathon's ideation period lasted one month and produced over 600 ideas. Over three days, the 16 finalist teams, comprised of more than 120 Valeo employees, were coached by Artefact's data scientist teams and Google Cloud experts to turn these 600 ideas into concrete solutions geared toward greater efficiency. Having built a better understanding of the opportunities offered by generative AI and thanks to their own creativity, following the ideation phase the teams were able to create a minimum viable product (MVP). The projects were then assessed by a jury made up of members of Valeo's Executive Committee. Three winning projects were selected, focused on the following topics: "Manufacturing maintenance: Troubleshooting Powered by AI" (1<sup>st</sup> prize), "Chat with Data Sheets" (2<sup>nd</sup> prize) and "AI powered Requirements Analysis Tool" (3<sup>rd</sup> prize). A fourth project, concerning Data Augmentation, was recognized as most innovative.



**"This hackathon is a testament to the capacity for innovation and development of new activities that our generative AI solutions and our infrastructure enable. It shows not only the excitement around AI, but also the enthusiasm for combining ideas, skills, diversity and technologies."**

Isabelle Fraine, Managing Director of Google Cloud France

**460**  
participants

**3**  
winning projects

**600**  
ideas



# Today's mobility reinvents the interior experience

Mobility holds a new promise: to offer drivers and passengers an immersive, relaxed, personalized travel experience. To realize this promise, Valeo is harnessing the full potential of AI and virtual reality.



Discover the *Sérénité* project,  
which aims to develop the  
empathetic car.



# 10%

average annual growth in the interior experience reinvention market through 2030

# 90%

of new cars are expected to be connected by 2023

## Immersion and empathy: imagining a new way to travel

An “empathetic” vehicle, capable of deciphering our emotions and reacting accordingly: this is the future Valeo is working to develop with its Smart Cocoon concept. The increased use of artificial intelligence in the cabin enables this new user-centric approach to the interior experience. With Smart Cocoon, the car learns from its passengers. Today’s cars already use a growing number of sensors and cameras to enhance safety and well-being on board. Valeo is going a step further, however, by teaming up with artificial intelligence specialist Sensum to develop a multisensory approach that uses cameras and sensors to calculate an “emotional comfort index”, cross-referencing physiological data (heart rate, thermal stress, clothing, etc.) with graduated emotional characteristics (anger, joy, excitement, passiveness, etc.). Based on this index, the system adjusts comfort features according to each passenger’s mood. In the autonomous cars of the future, travel time will increasingly be used for entertainment, work or relaxation. This is an opportunity for Valeo to create more enjoyable travel with immersive solutions, such as the eXtended Reality Experience, which allows passengers equipped with a virtual reality headset to immerse themselves in the world of their choice; Panorama XR, which allows a 3D representation of the car in its real environment, filmed by the vehicle’s cameras, to be shared with contacts in real time; and Voyage XR, which creates the illusion that a friend or family member is in the vehicle and offers this remote “passenger” an immersive experience, thanks to a virtual reality headset and controllers.



## Valeo ImagIn, a unique, multisensory experience

Valeo and Sennheiser Mobility have combined their expertise to design Valeo ImagIn, a unique multi-sensory experience where light combines with an immersive audio system to create the illusion of a sound stage around each passenger, transforming every journey into a breathtaking, immersive soundscape. The Valeo ImagIn interior lighting system is composed of projection modules, smart adaptable user interfaces, and software dedicated to projection and content management. It combines projected visual content with smart surfaces and sound to create an immersive, intuitive experience.

# Today's mobility increases visibility

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Lighting, around the vehicle as well as on board, is becoming increasingly important, especially as electrification grows and vehicles become increasingly autonomous. The reduction of radiator grilles has allowed automotive designers to unleash their creativity. In the age of autonomous vehicles, lighting – which is key to the safety of drivers and other road users – is becoming an essential means of communication between the vehicle and its surroundings.



Discover the Zeekr x Valeo  
customized lighting experience.



## The dawn of a new era for lighting and cleaning

To design next-generation lighting systems, Valeo is capitalizing on the power of AI while striving to further reduce the environmental footprint of its solutions. By using a “digital twin”, Valeo makes it possible to optimize a vehicle’s style and lighting functions, and to visualize them precisely in real time. Valeo has developed artificial intelligence systems to instantly define and visualize holistic designs by combining style, functionality and materials. These cutting-edge systems will accelerate the virtual development of lighting solutions, meaning that prototypes can be built at the latest possible stage, which in turn helps reduce the cost of developing such solutions. Among the products Valeo unveiled in 2023 is Purelight, a disruptive headlamp concept offering a reduced carbon footprint. Based on a circular approach, this new headlamp contains bio-sourced materials, uses additive manufacturing and enables materials to be repaired and reused to minimize its weight and extend its life cycle.



## The sustainable wiper is born

Valeo Canopy is the first wiper blade designed to reduce CO<sub>2</sub> emissions by 61%<sup>(1)</sup>. Its rubber blade is made from over 80% natural, renewable or recycled materials (cane sugar, vegetable oils or carbon black from recycled tires), while its metal structures contain up to 15% recycled steel, and its end clips up to 50% recycled plastic. The range covers 95% of the European vehicle fleet.

(1) Compared with a Valeo wiper blade, representative of the majority of blades sold on the European market.



# €50bn

Projected value  
of the visibility systems  
market in 2030

# x1.9

Growth of the visibility  
systems market between  
2022 and 2030

# No.1

Valeo is the world  
leader in lighting and wiper  
systems

# Useful, innovative technologies, beyond mobility

Valeo's expertise in thermal management and ADAS opens up new opportunities outside its traditional territory. By contributing to decarbonization efforts, its innovative technologies can also be used to equip smart city infrastructure.



Discover the Valeo Smart Pole, an innovative solution for smart lighting and charging stations.

## Technologies for smart city infrastructure

Today, Valeo's innovations are finding new applications beyond the automotive industry. For example, they can help cities meet the challenge of decarbonization. At the VivaTech 2023 trade show in Paris, Valeo signed a partnership with Equans, world leader in the energy and services sector, to work together to shape the smart, safe and low-carbon city of the future. The two partners will develop solutions to meet a number of needs, including the development of a connected urban space that is safer for pedestrians and cyclists, thanks in particular to the Smart Pole, which was presented at VivaTech at the Bouygues stand. Their collaboration will also focus on optimizing the operations of data centers and energy storage facilities, as well as developing electric mobility through charging and V2G solutions. Valeo's expertise in high-performance thermal systems can also offer benefits for the data center sector. Data centers consume 5% of the world's electricity production, and 40% of their consumption is devoted to cooling servers. In addition, as chip power increases, so does the need for powerful cooling systems. Valeo has teamed up with ZutaCore to develop the ZutaCore HyperCool® solution. Equipped with Valeo's new 3U Water Heat Reuse Unit, it could consume up to five times less energy than air cooling solutions and unlock five times more computing power for a given volume. In addition, this solution reduces the carbon footprint of data centers thanks to the cooling system's low energy consumption and the recovery of heat dissipated by servers for heating the building.

**"Reducing the use of energy, water and land, and focusing on recyclability and the use of sustainable materials, are essential if the data industry is to achieve its net-zero emissions targets. ZutaCore is proud to be at the forefront of sustainable dielectric liquid cooling solutions with Valeo's 3U Water Heat Reuse Unit, which can accommodate up to 78 kW of rack power."**

Udi Paret, President US of ZutaCore

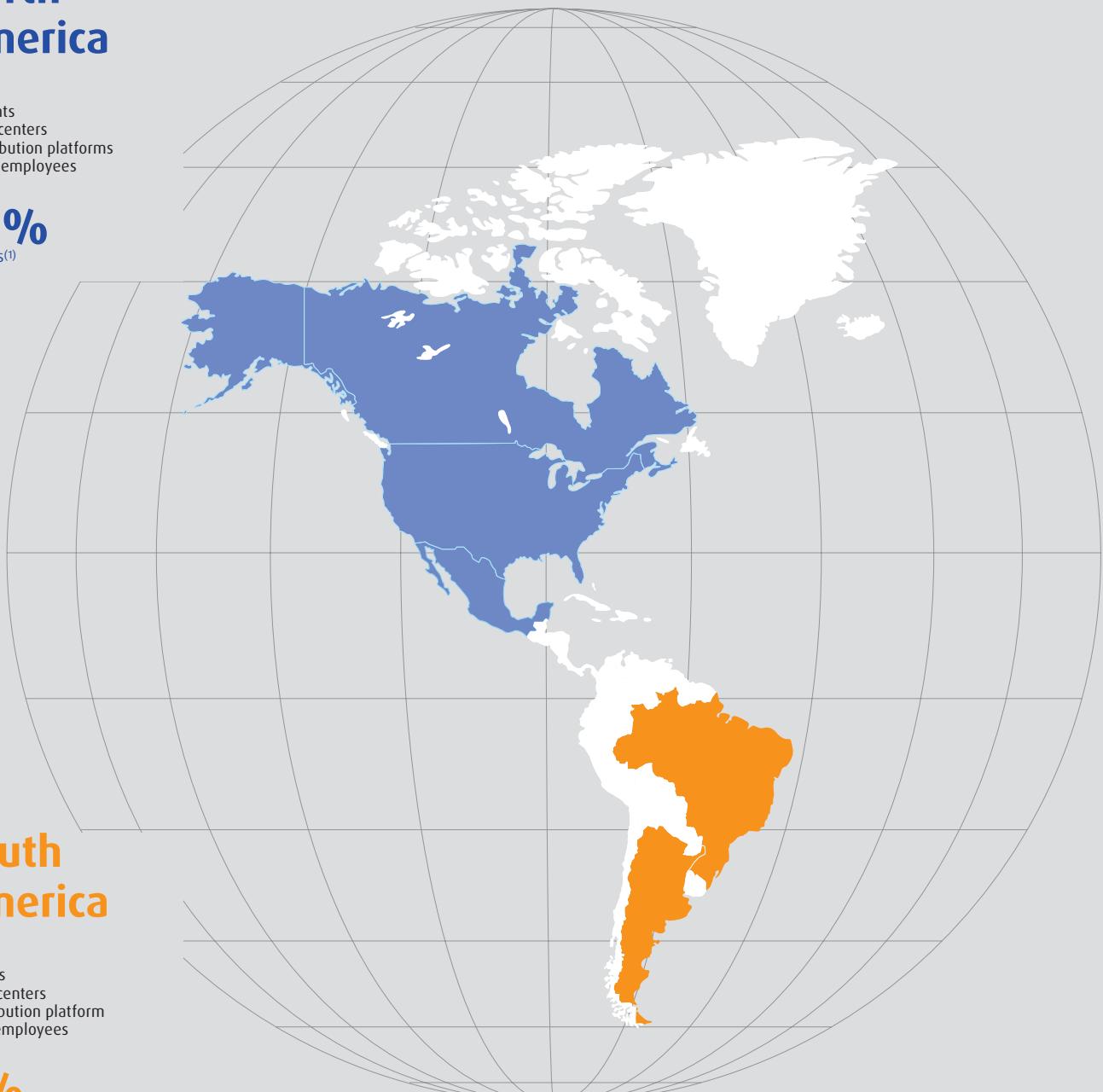


# Closely in touch with market realities

## North America

**23** plants  
**6** R&D centers  
**2** distribution platforms  
**17,199** employees

**19%**  
of sales<sup>(1)</sup>



## South America

**5** plants  
**2** R&D centers  
**1** distribution platform  
**2,132** employees

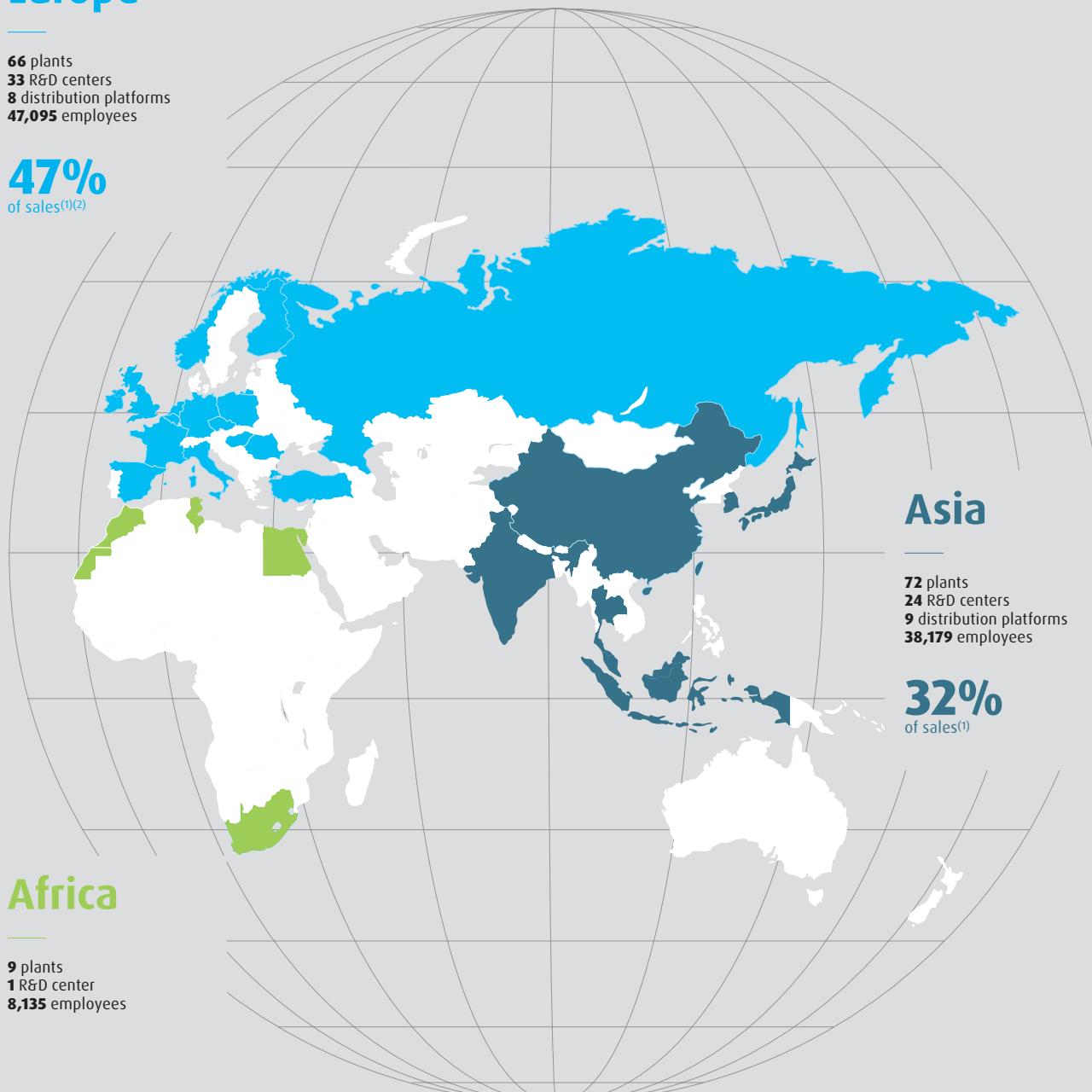
**2%**  
of sales<sup>(1)</sup>

With a portfolio of customers on every continent, Valeo responds to major mobility trends staying closely in tune with local markets. With operations in 29 countries, its network of plants and R&D centers enables it to anticipate needs and meet them under optimal conditions in terms of quality, speed and profitability.

## Europe

**66** plants  
**33** R&D centers  
**8** distribution platforms  
**47,095** employees

**47%**  
of sales<sup>(1)(2)</sup>



(1) Original equipment sales.  
(2) Including Africa.

# Operational excellence at the heart of customer satisfaction

---

A cornerstone of Valeo's corporate culture, operational excellence is applied worldwide and on a daily basis at all levels of the Group's organization and in all functions, plants and development centers. Key to customer satisfaction and trust, it is based on Valeo's rigorous "5 Axes" methodology, which is applied by all its employees.

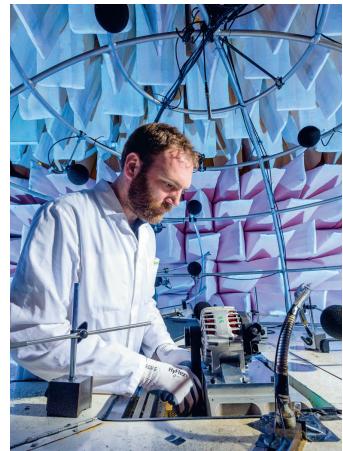


Discover Valeo's operational excellence in figures.

## Be the No. 1 trusted partner

Recognized by both the Group's customers and its peers, Valeo's operational excellence is based on its unique "5 Axes" approach, a rigorous methodology that forms the core of its corporate culture. The 5 Axes cover five areas: employee engagement, total quality, product development, production system and supplier integration. The methodology allows Valeo to manage on a daily basis the production of more than 8 million technologies and handle the more than 2 billion components coming into its plants every day. Adopted by all Valeo employees and sites worldwide, the 5 Axes methodology allows them to deliver the same level of performance and meet customer requirements in terms of quality, cost and delivery times. At the forefront of the electrification and ADAS revolutions, Valeo's solutions incorporate increasingly more electronic components and software.

As vehicles become more connected, cybersecurity is becoming a vital factor in the choice of a supplier. In 2023, the Group received ISO/SAE 21434 certification. This benchmark standard for automotive cybersecurity covers the management of cybersecurity risks throughout the product lifecycle, including the maintenance and retirement of onboard vehicle systems. All of Valeo's operations worldwide, including its four Business Groups, derivative products and after-sales business, are now covered by this cybersecurity certification, which recognizes the Group's high level of performance and security in all its areas of operation.



# PERFOR TRAJECTORY

## In line with Move Up

Valeo is staying the course set out in its Move Up strategic plan and accelerating its transformation, with the objective of increasing operating margin and cash generation by more than 60% between 2023 and 2025.

For over a decade, Valeo has been investing in technologies that place its product portfolio at the heart of the automotive industry's shift towards safer, greener and more connected mobility solutions. The sharp rise in order intake to 34.9 billion euros in 2023 and the significant improvement in their embedded margins attest to the validity of these strategic choices. The Group is confident in the growth in its original equipment sales in Europe and every other production region. In 2025, the start of production on large orders booked since 2022 should spur faster growth in original equipment sales. Valeo is accelerating the reduction in costs through specific, targeted measures over the next two years, representing full-year savings of 200 million euros, and accelerated R&D efficiency.

For greater comfort, Valeo's new medium-term growth objectives are based on prudent assumptions.

# MANCE

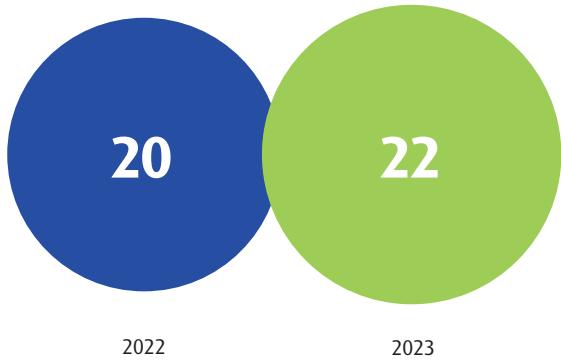
## 2025 MOVE UP OBJECTIVES



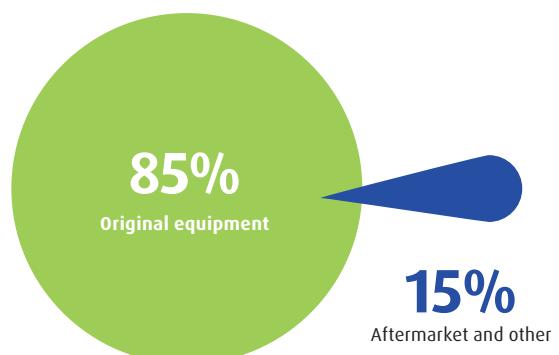
(1) Before one-time exceptional cost reduction measures.

# Financial performance

## SALES in billions of euros



## SALES BREAKDOWN as a % of sales



## OPERATING MARGIN

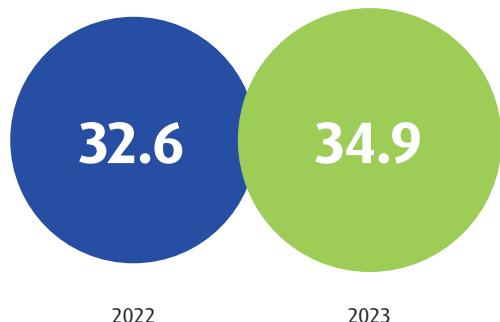
in millions of euros and as a % of sales,  
excluding share in net earnings  
of equity-accounted companies



for the aftermarket business,  
which grew by 4% on a like-for-like  
basis (2022 as adjusted, i.e.,  
as if the high-voltage electrification  
business had been consolidated  
in the Group's financial statements  
as of January 1, 2022)

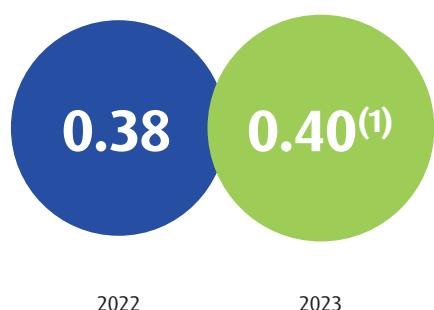
## ORDER INTAKE

in billions of euros



## DIVIDEND PER SHARE

in euros



(1) Submitted to the Shareholders' Meeting called to approve the financial statements for the year ended December 31, 2023.

**€2.6bn**

in EBITDA

**12%**

sales

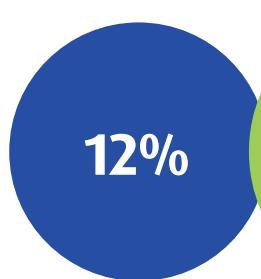
**€379m**

in free cash flow

## OTHER PROFITABILITY INDICATORS

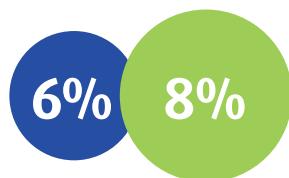
### ROCE

(return on capital employed)



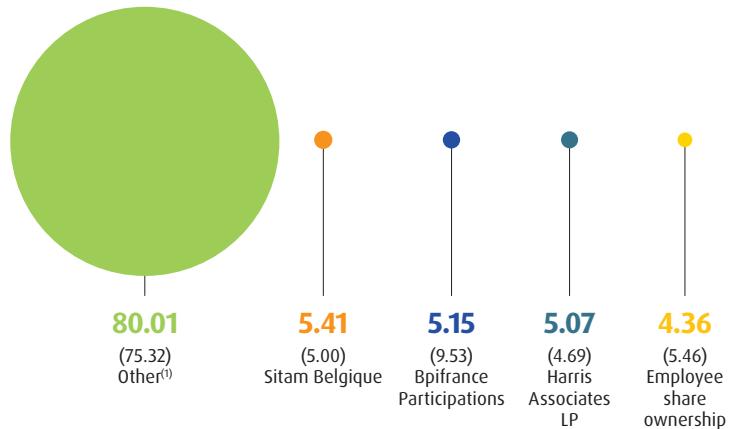
### ROA

(return on assets)



**OWNERSHIP STRUCTURE AT FEBRUARY 29, 2024**

% of share capital (% of voting rights)



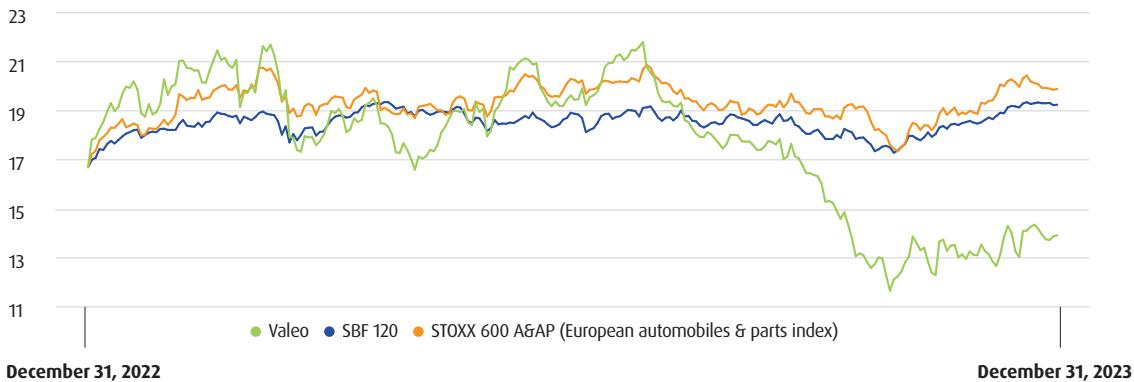
(1) Including 770,684 treasury shares (0.32% of the share capital).

**STOCK MARKET DATA**

	2021	2022	2023
<b>Market capitalization at year-end</b> (in billions of euros)	6.45	4.07	<b>3.40</b>
<b>Number of shares</b>	242,574,781	243,501,944	<b>244,633,504</b>
<b>Highest share price</b> (in euros)	33.66	28.50	<b>22.23</b>
<b>Lowest share price</b> (in euros)	20.47	13.80	<b>11.53</b>
<b>Average share price</b> (in euros)	27.01	19.19	<b>17.71</b>
<b>Share price at year-end</b> (in euros)	26.58	16.70	<b>13.92</b>

**SHARE PRICE**

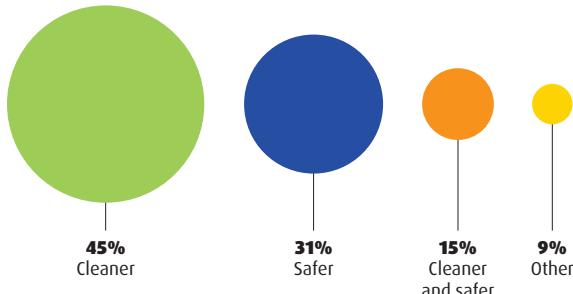
in euros



# 2023 responsible performance indicators

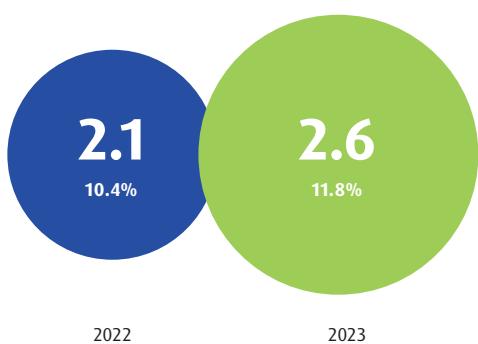
## GREENER AND SAFER MOBILITY IS CENTRAL TO OUR STRATEGY

Original equipment sales derived from products contributing to cleaner and safer mobility



## GROSS RESEARCH AND DEVELOPMENT EXPENDITURE

in billions of euros and as a % of sales



**19,376**

Research and Development employees,  
including

**9,450**

dedicated to software

**1,619**

experts

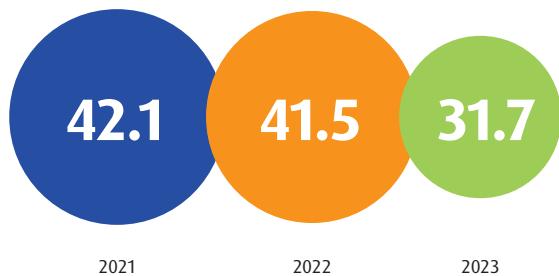
**1,600**

More than  
patents filed in 2023

## Environmental indicators

**TOTAL DIRECT (SCOPE 1)  
AND INDIRECT (SCOPE 2) GHG<sup>(1)</sup>  
EMISSIONS AS A % OF SALES**

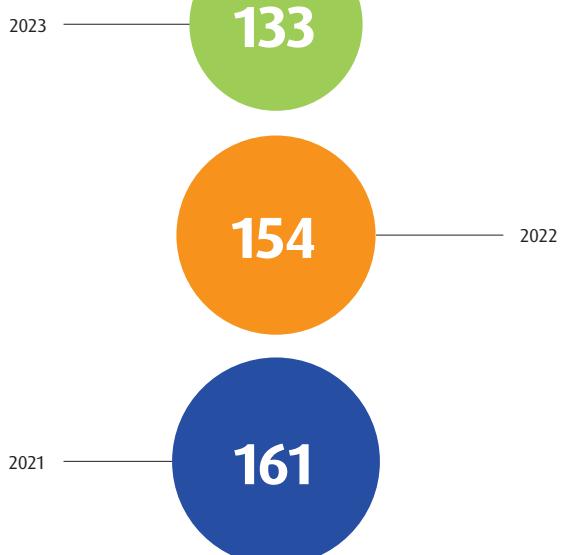
in tCO<sub>2</sub>/€m



(1) Greenhouse gases.

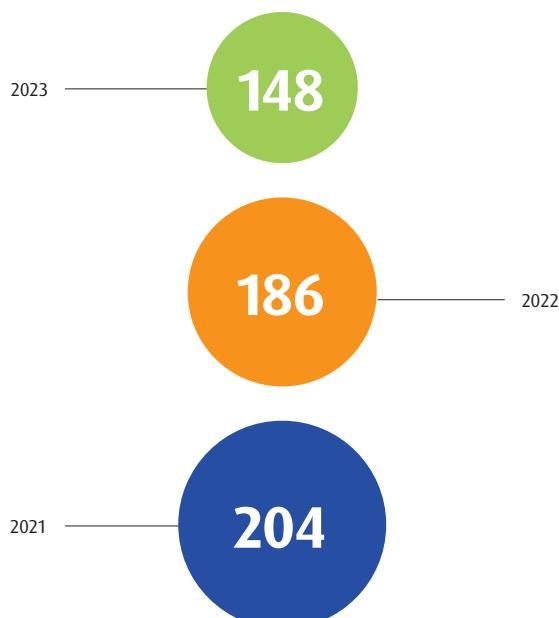
**ENERGY CONSUMPTION**

in MWh/€m



**TOTAL WATER CONSUMPTION  
AS A PROPORTION OF SALES**

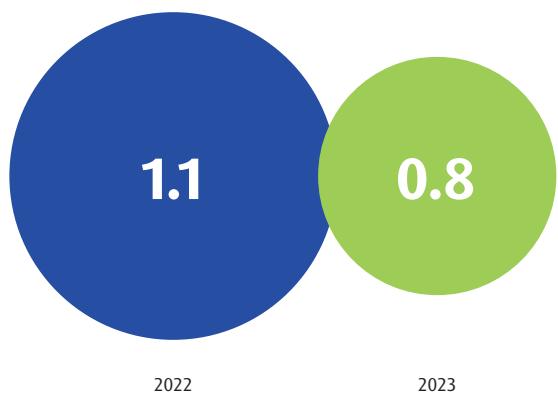
in cu.m/€m



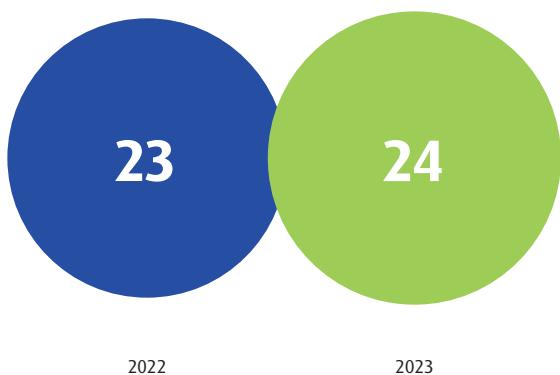
**52%**  
OF VALEO SITES  
ARE CERTIFIED ISO 50001

## Labor-related indicators

### FREQUENCY RATE OF OCCUPATIONAL ACCIDENTS (FR1)<sup>(1)</sup>



### AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE<sup>(2)</sup>



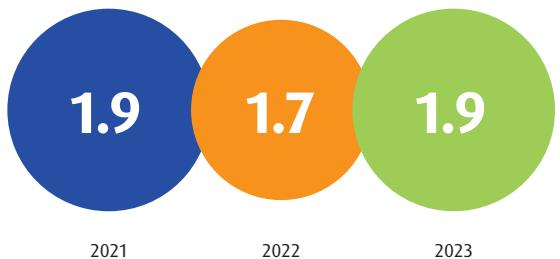
(1) Calculation of FR1: number of lost-time accidents x 1,000,000/number of hours worked during the year.

(2) This ratio corresponds to all employees trained during the year (including those no longer in the Group)/total headcount at end-December.

### BREAKDOWN OF WOMEN BY SOCIO-PROFESSIONAL CATEGORY as a %

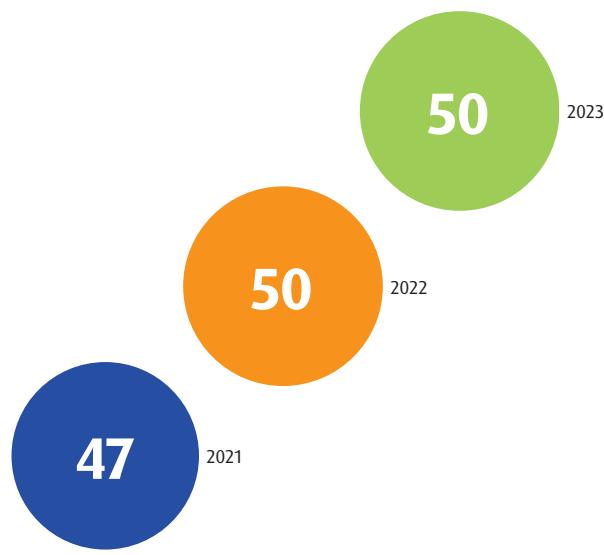


### PROPORTION OF EMPLOYEES WITH DISABILITIES WORLDWIDE (DIRECT EMPLOYMENT) as a %



## Corporate citizenship indicators

**SHARE OF SITES  
PARTNERING WITH LOCAL  
ELEMENTARY/SECONDARY SCHOOLS**  
as a %



**51%**

OF VALEO SITES PARTNER  
WITH LOCAL UNIVERSITIES/  
ENGINEERING SCHOOLS  
ON A FORMAL BASIS

**SHARE OF PRODUCTION PURCHASES  
FOR WHICH SUPPLIERS' SUSTAINABLE  
DEVELOPMENT PRACTICES WERE  
ASSESSED DURING THE YEAR**  
as a % of total purchases



# 2025 sustainable development plan

Valeo has set new objectives for 2025 based on four key axes: innovation, environmental eco-efficiency, employees and commitment to corporate citizenship. The 2025 environmental targets are aligned with Valeo's Carbon Neutrality Plan announced in February 2021.

AXES	Challenges	Key indicators	2019 results <sup>(1)</sup>	2022 results	2023 results	2025 objectives
INNOVATION	<b>Carbon Neutrality Plan and low-carbon mobility solutions</b>	Greenhouse gas emissions across the value chain (Scopes 1, 2 and 3) - Indicator validated by SBTi (in MtCO <sub>2</sub> )	49.6	45.2	<b>45.2</b>	<b>45.3</b>
		Share of products contributing to the reduction of greenhouse gas emissions (as a % of sales)	57%	60%	<b>60%</b>	<b>&gt;50%</b>
ENVIRONMENTAL ECO-EFFICIENCY	<b>Energy and carbon efficiency of production</b>	Direct (Scope 1) and indirect (Scope 2) emissions as a proportion of sales (in tCO <sub>2</sub> /€m) and change vs. 2019 (%)	57.6	39.8 (-31%)	<b>31 (-45%)</b>	<b>40 (-31%)</b>
		Energy consumption as a proportion of sales (in MWh/€m) and change vs. 2019 (%)	142	154 (+8%)	<b>133 (-6%)</b>	<b>134 (-6%)</b>
EMPLOYEES	<b>Discharges and waste</b>	ISO 50001 energy management certification (as a % of sites)	18%	40%	<b>52%</b>	<b>40%</b>
		Production of hazardous and non-hazardous waste as a proportion of sales (in t/€m) and change vs. 2019 (%)	16.4	13.9 (-15%)	<b>12.7 (-23%)</b>	<b>15 (-9%)</b>
COMMITMENT TO CORPORATE CITIZENSHIP	<b>Water</b>	Water consumption as a proportion of sales (in cu.m/€m) and change vs. 2019 (%)	197	186 (-6%)	<b>148 (-25%)</b>	<b>185 (-6%)</b>
		Accident frequency rate (FR1): number of accidents with lost time per million hours worked	1.9	1.1	<b>0.8</b>	<b>&lt;1<sup>(5)</sup></b>
EMPLOYEES	<b>Promoting diversity</b>	Gender equity index <sup>(2)</sup>	82.0	87.9	<b>88.9</b>	<b>90</b>
	<b>Skills</b>	Number of hours of technical training (in thousands of hours)	1,772	4,185	<b>5,026</b>	<b>3,000</b>
	<b>Quality of life at work</b>	Rate of compliance with the "My well-being" Involvement of Personnel roadmap <sup>(3)</sup>	61%	74%	<b>53%</b>	<b>64%</b>
COMMITMENT TO CORPORATE CITIZENSHIP	<b>Purchasing and sustainable development</b>	Share of production purchases for which the suppliers' sustainable development practices were assessed during the year (as a % of total purchases) <sup>(4)</sup>	80%	85%	<b>85%</b>	<b>82%</b>
	<b>Local integration</b>	Organization of initiatives and events by the Valeo sites with educational and vocational training institutions (as a % of sites)	68%	73%	<b>73%</b>	<b>85%</b>
	<b>Local communities</b>	Share of sites participating in the "One Plant, One Initiative" program	50%	52%	<b>64%</b>	<b>100%</b>

(1) 2019 is the baseline year under the new 2020-2025 plan.

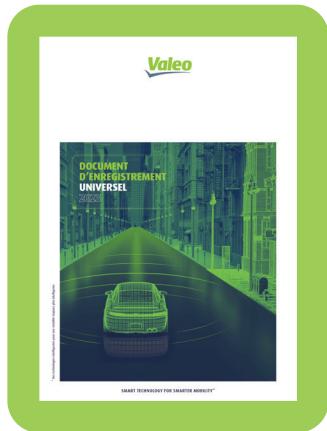
(2) The gender equity index covers all sites worldwide. This index is based on the evaluation of five criteria: the pay gap between men and women; the gap in the distribution of individual pay rises between men and women; the gap in the distribution of promotions; the percentage of female employees who received a pay rise after returning from maternity leave; and the percentage of women in the ten highest paid positions. It only covers Managers and Professionals.

(3) The 2025 target of a 75% achievement rate for the "Building a well-being environment" roadmap, launched in 2018, was reached at the beginning of 2023. In January 2023, the Involvement of Personnel axis was renamed "Employee Engagement", and the "My well-being" roadmap was incorporated into the new axis, with a target achievement rate of 64% by 2025. For a more detailed description of this transition, see section 4.3.4.2 of the 2023 Universal Registration Document. It should also be noted that the 2019 result mentioned is that of the "Building a well-being environment" roadmap, which was calculated using a different methodology than the "My well-being" roadmap, and is therefore not comparable.

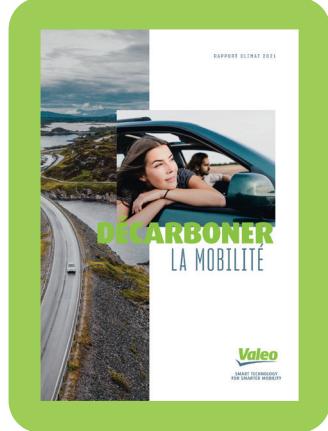
(4) In application of the Sustainability-Linked Bond (SLB) principles, which highlight as a second criterion the extent to which Valeo's suppliers adhere to its sustainable development principles, the Group has undertaken to increase the percentage of the smallest suppliers assessed from 2021. The assessment target of 82% of purchase volumes by 2025, set in 2019, was actually achieved in 2021, pointing to rapid progress in the granularity of the hundreds of smaller suppliers to be assessed. This is exactly the type of progress expected in the value chain, where the Group must now capitalize on deeper awareness of sustainability principles among SMEs. Constant work is done within the strict perimeters of large groups.

(5) The continuous improvement of FR1 since 2020 has encouraged the Group to adjust its 2025 target from <1.7 to <1.

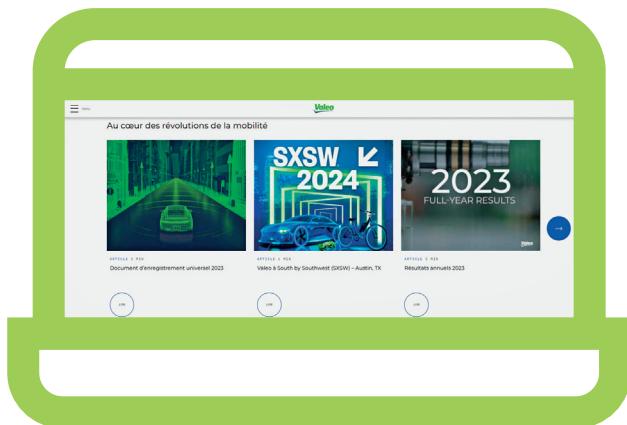
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