RESULTS 2022

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1. REPORT OF THE MANAGERS

1.1 TIRE MARKETS

1.1.1 A GLOBAL MARKET WORTH SOME $180 BILLION[1] IN 2021

After being severely impacted by the Covid-19 crisis in 2020, demand steadily recovered in 2021, lifting the global tire market 18% year-on-year to around $180 billion. Light-vehicle tires accounted for around 60% of total sales and truck tires 30%.[2] By volume, the market represented a little more than 1.5 billion car and light truck tires and some 220 million truck and bus tires.[2]

Around three out of four tires were sold in the Replacement market.

In 2022, tire markets generally rose back in line with 2019 levels, with the exception of the Aircraft and Automotive Original Equipment segments.

Longer term, tire demand is likely to expand by 0-2% a year in mature markets and by 2-4% a year in the new markets. In this environment, Michelin is targeting growing, high value-added market segments, such as the premium segment for its Automotive business and specialty markets.

Changes in tire standards

In recent years, mandatory tire performance ratings, displayed on standardized labels, have been introduced in the European Union and many other regions around the world. Similar systems with minimum performance standards and regulated tire labeling have also been deployed in India and are under consideration in China and the United States. Labeling systems now cover the Three Peak Mountain Snowflake (3PMSF) and Ice markings, which show that the tires have demonstrated minimum required snow or ice grip, and will be extended in coming years to the rolling resistance of retreaded tires and to tire abrasion.

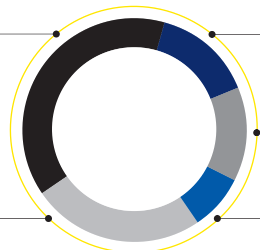
In addition, environmental legislation requiring car and truck manufacturers to reduce carbon emissions is helping to drive demand for low rolling resistance tires, of which Michelin is a world-leading manufacturer.

Such legislation is currently being extended to a broader range of vehicles. For example, the European Union's VECTO carbon emissions simulation model, which introduced tire rolling resistance as a prime parameter in calculating truck emissions, has now been extended to passenger transportation vehicles (buses and coaches), as well as to heavy vans.

Following on from the EU introduction in 2019 of wet grip performance standards for worn tires, the United Nations is working on the R117-04 regulation, with the goal of introducing, effective 2024, a minimum wet grip performance standard for worn tires still within the legal wear limit. This will help to ensure that tires deliver at least minimum acceptable performance throughout their useful lives.

Lastly, a unique RFID tag is being gradually embedded into every tire, which will ultimately enable the entire industry to track its products across their life cycles, from manufacture to recycling, thereby improving the management of their environmental impact and the safety risks due to manufacturing defects.

THE GLOBAL TIRE MARKET BY MANUFACTURER IN 2021



Source: 2021 sales in US dollars, published in Tire Business*, August 2022.*

(1) Tiremakers with a 2-7% market share according to the Tire Business *ranking.*

(2) Tiremakers with less than a 2% market share according to the Tire Business *ranking.*

1.1.2 TIRE MARKETS IN 2022

In 2022, and especially in the first half, tire markets were extensively impacted by a multitude of disruptions, including automaker component procurement difficulties, complications in the global supply chain (particularly in transportation), the resurgence of the health crisis in China and the outbreak of war in Ukraine. All these factors and more helped to drive high volatility in sell-in demand throughout the year, even if some sources of strain eased in the second half.

In all, the Passenger car and Light truck tire market rose by 1% over the year, but remained below its 2019 level, while the Truck tire market (excluding China) gained 7% and exceeded its 2019 level.

Methodological note: Tire market estimates reflect sell-in (sales of manufacturers to dealers and vehicle manufacturers) data published by local tiremaker associations, plus Michelin's own estimates of sales by tire manufacturers that do not belong to any association. These estimates are based primarily on import-export statistics and are expressed in the number of tires sold. They are regularly adjusted and may be updated following their initial publication.

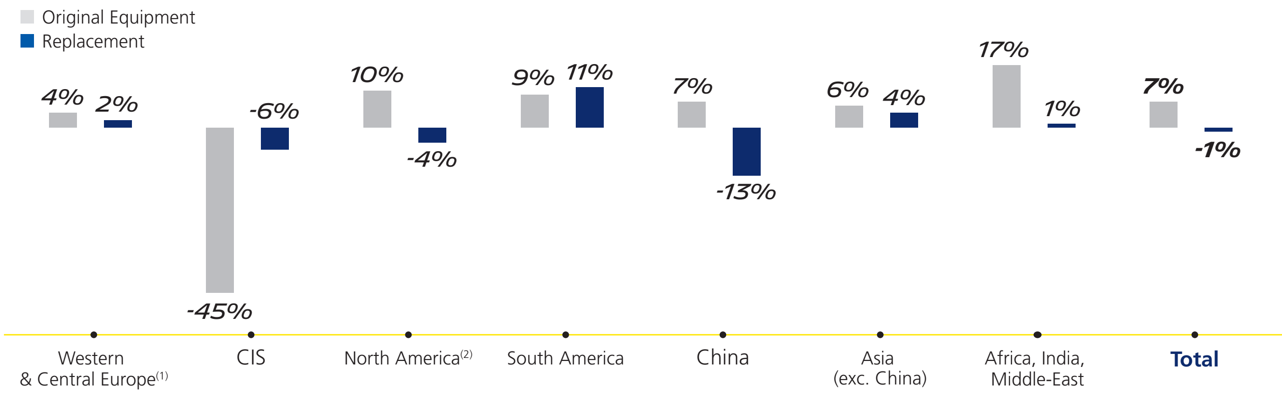
(1) Source: Tire Business.

(2) Michelin estimates.

1.1.3 PASSENGER CAR AND LIGHT TRUCK TIRE MARKETS IN 2022

The global Original Equipment and Replacement **Passenger car and Light truck** tire market grew by 1% year-on-year in 2022, but remained 2% down on 2019.

THE GLOBAL PASSENGER CAR AND LIGHT TRUCK TIRE MARKET, 2022 VS. 2021



(1) Including Turkey.
(2) Including Central America.
Michelin estimates.

1.1.3.1 Original Equipment

Worldwide Original Equipment demand climbed 7% year-on-year, but fell 8% short of 2019 levels. This broadly favorable trend reflected a full-year dynamic shaped by a slight 1% contraction in the first half, caused by automaker production issues, followed by a 15% upsurge in the second half due to the favorable comparison with a prior-year period impacted by the severe global shortage of semiconductors.

Passenger car and Light truck tire markets Original Equipment *(in millions of tires)*	**2022**	**2021**	**2022/2021**	**Second-half 2022/2021**	**Fourth-quarter 2022/2021**	**Third-quarter 2022/2021**	**First-half 2022/2021**	**Second-quarter 2022/2021**	**First-quarter 2022/2021**
Western and Central Europe[1]	70	68	+4%	+19%	+13%	+27%	-7%	+1%	-15%
CIS	4	8	-45%	-48%	-48%	-47%	-42%	-63%	-20%
North America[2]	69	63	+10%	+15%	+8%	+23%	+5%	+12%	-2%
South America	14	13	+9%	+19%	+7%	+34%	-1%	+13%	-13%
China	123	115	+7%	+13%	-2%	+34%	0%	-6%	+6%
Asia (excluding China)	70	66	+6%	+18%	+7%	+32%	-4%	-3%	-6%
Africa/India/Middle East	36	30	+17%	+19%	+2%	+37%	+16%	+25%	+8%
TOTAL	**386**	**362**	**+7%**	**+15%**	**+3%**	**+29%**	**-1%**	**+1%**	**-3%**

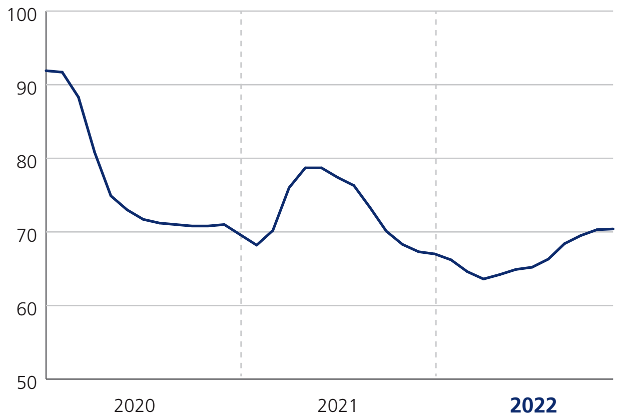
(1) Including Turkey.
(2) Including Central America.
Michelin estimates.

The regional market most affected by the multitude of crises was **Europe**, where the market ended the year up just 4%, with demand still 24% down on 2019.

Buoyed by low new vehicle inventory, demand in **North America** held firm throughout the year, gaining 10% overall but remaining 12% lower than in 2019.

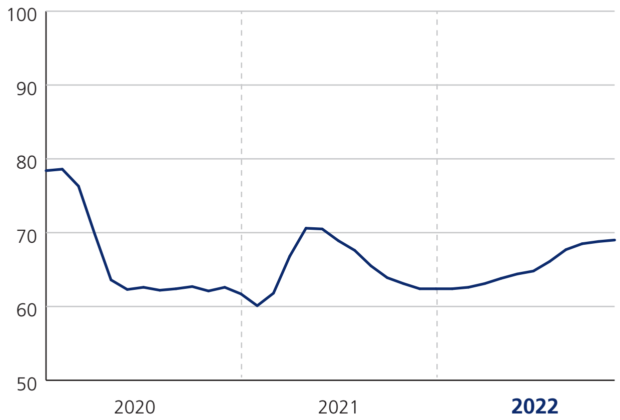
In **China**, the resurgence of Covid-19 in April and May caused demand to hit new lows before rebounding sharply in June as health restrictions were lifted. The favorable momentum continued into the third quarter, led by the introduction of new car incentives and fast growing EV sales, but slowed in the final three months with the resurgence of the health crisis. In all, the market expanded by 7% over the year and stood 6% higher than in 2019.

THE OE PASSENGER CAR AND LIGHT TRUCK MARKET IN EUROPE
(in millions of tires – moving 12 months – excluding Russia)



Michelin estimates.

THE OE PASSENGER CAR AND LIGHT TRUCK MARKET IN NORTH AMERICA
(in millions of tires – moving 12 months)



Michelin estimates.

1.1.3.2 Replacement

Although hard hit by conditions in China and North America, **global Replacement tire demand** was broadly unchanged in 2022, losing just 1% and moving back in line with 2019. After rising 1% in the first half, the market contracted by 3% in the second half due to a more unfavorable basis of comparison.

Passenger car and Light truck tire markets Replacement *(in millions of tires)*	2022	2021	2022/2021	Second-half 2022/2021	Fourth-quarter 2022/2021	Third-quarter 2022/2021	First-half 2022/2021	Second-quarter 2022/2021	First-quarter 2022/2021
Western and Central Europe[(1)]	324	319	+2%	-4%	-11%	+2%	+8%	+7%	+9%
CIS	59	63	-6%	-4%	-10%	+3%	-8%	-22%	+7%
North America[(2)]	316	328	-4%	-8%	-7%	-9%	+1%	-3%	+5%
South America	77	69	+11%	+18%	+25%	+11%	+5%	+1%	+8%
China	117	135	-13%	-10%	-16%	-3%	-16%	-23%	-10%
Asia (excluding China)	148	142	+4%	+2%	-8%	+17%	+6%	0%	+13%
Africa/India/Middle East	112	110	+1%	+6%	+7%	+5%	-3%	-7%	+1%
TOTAL	**1,154**	**1,167**	**-1%**	**-3%**	**-6%**	**+1%**	**+1%**	**-3%**	**+5%**

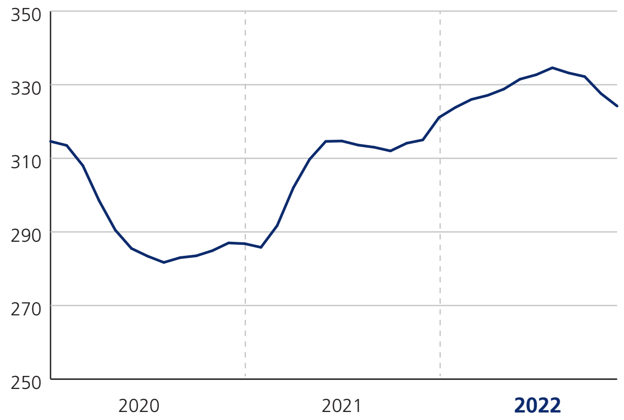
(1) Including Turkey.
(2) Including Central America.
Michelin estimates.

Demand in **Europe** ended the year up 2%, despite a steep 11% decline in the fourth quarter from the prior-year period, when the market was lifted by early buying ahead of the January 1, 2022 price increases announced across the tire industry in a highly inflationary environment, as well as a more dynamic winter than in 2022.

The **North American** market moved back in line with 2019 levels, despite a 4% decline in demand during the year. The firm growth delivered by the region in the first half (up 1% from the high basis of comparison) was dampened in the second (down 8%) when dealers had to clear out the substantial Asian import inventory that had built up over the summer.

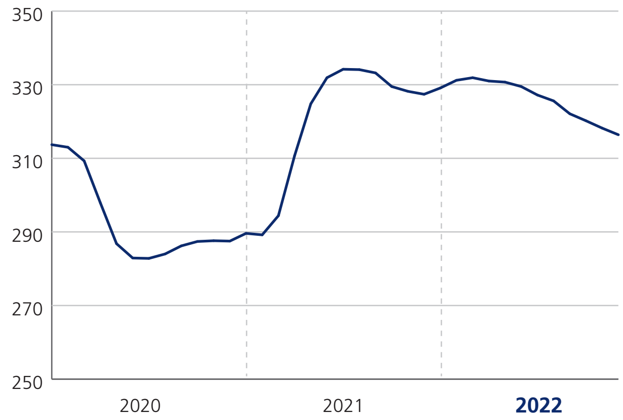
In **China**, the impact of the health crisis weighed on demand throughout 2022, pushing the market down 13% year-on-year and 15% behind 2019.

THE REPLACEMENT PASSENGER CAR AND LIGHT TRUCK TIRE MARKET IN EUROPE
(in millions of tires – moving 12 months – excluding Russia)



Michelin estimates.

THE REPLACEMENT PASSENGER CAR AND LIGHT TRUCK TIRE MARKET IN NORTH AMERICA
(in millions of tires – moving 12 months)

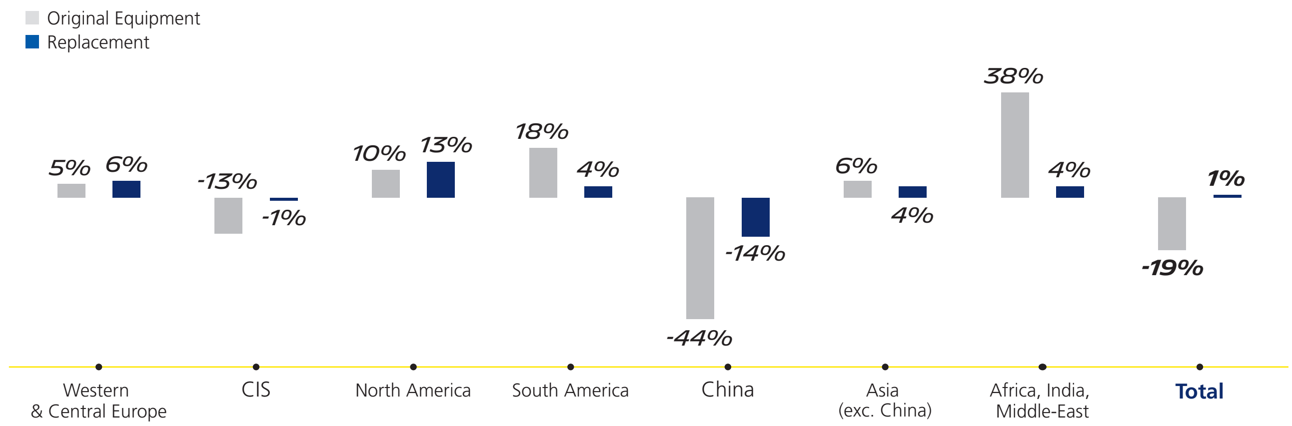


Michelin estimates.

1.1.4 TRUCK TIRE MARKETS IN 2022

The worldwide **Truck** tire market shrank by 4% in 2022, dragged down by the 26% plunge in Chinese demand.(1) Excluding China, the market was up 7%, and exceeds by 9% its 2019 level.

THE GLOBAL TRUCK TIRE MARKET, 2022 VS. 2021



(1) Including Turkey.
(2) Including Central America.
Michelin estimates – new tire market only.

(1) The fall-off in Chinese demand over the period largely reflected the highly unfavorable comparison with 2021, when new truck purchases soared ahead of implementation of the China 6 emissions standard on July 1. This was followed by a sharp slowdown in demand, first for OE tires and then for Replacement tires.

1.1.4.1 Original Equipment

In Original Equipment, the **global market** for Truck tires contracted by 19% in 2022. Excluding China, demand rose by 12% over the year and stood 6% higher than in 2019.

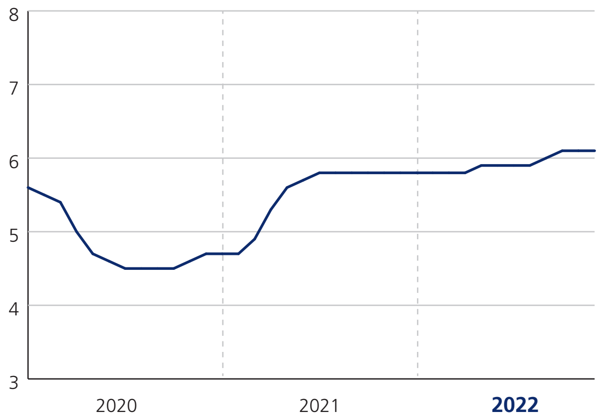
Truck tire markets Original Equipment *(in millions of tires)*	2022	2021	2022/2021	Second-half 2022/2021	Fourth-quarter 2022/2021	Third-quarter 2022/2021	First-half 2022/2021	Second-quarter 2022/2021	First-quarter 2022/2021
Western and Central Europe(1)	6.1	5.8	+5%	+9%	+5%	+14%	+1%	+2%	0%
CIS	1.0	1.1	-13%	-11%	+3%	-27%	-16%	-30%	+3%
North America(2)	6.7	6.1	+10%	+11%	+11%	+12%	+9%	+16%	+3%
South America	2.5	2.1	+18%	+24%	+34%	+15%	+12%	+13%	+11%
China	16.2	28.7	-44%	-25%	-27%	-23%	-53%	-57%	-50%
Asia (excluding China)	4.4	4.2	+6%	+15%	+8%	+22%	-2%	-4%	0%
Africa/India/Middle East	5.3	3.8	+38%	+32%	+45%	+20%	+43%	+44%	+42%
TOTAL	**42.2**	**51.9**	**-19%**	**-4%**	**-4%**	**-3%**	**-29%**	**-30%**	**-28%**

(1) Including Russia and Turkey.
(2) United States and Canada.
Michelin estimates.

Markets in **Europe** (up 5%) and **North America** (up 10%) remained very buoyant at year-end, as driver shortages and strong freight demand continued to encourage trucking companies to upgrade their fleets, keeping truck-maker order books full through to 2023.

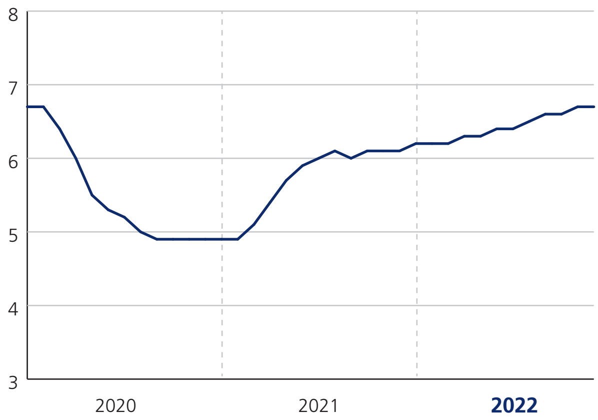
In **South America**, demand rose 18% on a surge in new truck orders in the second half ahead of the introduction of new emissions standards on January 1, 2023.

THE OE TRUCK TIRE MARKET IN EUROPE
(in millions of new tires – moving 12 months – excluding Russia)



Michelin estimates.

THE OE TRUCK TIRE MARKET IN NORTH AMERICA
(in millions of new tires – moving 12 months)



Michelin estimates.

1.1.4.2 Replacement

The global Replacement Truck tire market declined by 1% in 2022. Excluding China, robust freight demand enabled the market to end the year up 6% on 2021 and 10% higher than in 2019.

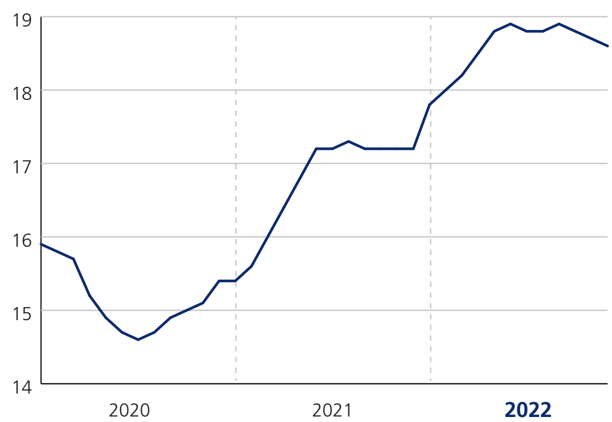
Truck tire markets Replacement *(in millions of tires)*	2022	2021	2022/2021	Second-half 2022/2021	Fourth-quarter 2022/2021	Third-quarter 2022/2021	First-half 2022/2021	Second-quarter 2022/2021	First-quarter 2022/2021
Western and Central Europe[(1)]	18.6	17.6	+6%	-3%	-6%	-1%	+16%	+17%	+14%
CIS	8.9	9.0	-1%	0%	+1%	-2%	-2%	-11%	+11%
North America[(2)]	35.8	31.8	+13%	+15%	+11%	+19%	+10%	+15%	+5%
South America	15.9	15.3	+4%	+3%	+1%	+4%	+5%	-2%	+12%
China	37.9	44.2	-14%	-7%	-10%	-3%	-22%	-19%	-25%
Asia (excluding China)	22.9	22.1	+4%	0%	-8%	+11%	+8%	+1%	+14%
Africa/India/Middle East	28.7	27.6	+4%	+18%	+23%	+14%	-8%	-2%	-14%
TOTAL	**168.7**	**167.5**	**+1%**	**+4%**	**+1%**	**+7%**	**-2%**	**-1%**	**-4%**

(1) Including Turkey.
(2) Including Central America.
Michelin estimates.

In **Europe**, the market grew by 6% overall in 2022, but momentum slowed during the year, from a 16% gain in the first half to a 3% decline in the second half compared with a particularly buoyant second half in the prior year. Compared with 2019, the market was up 17%.

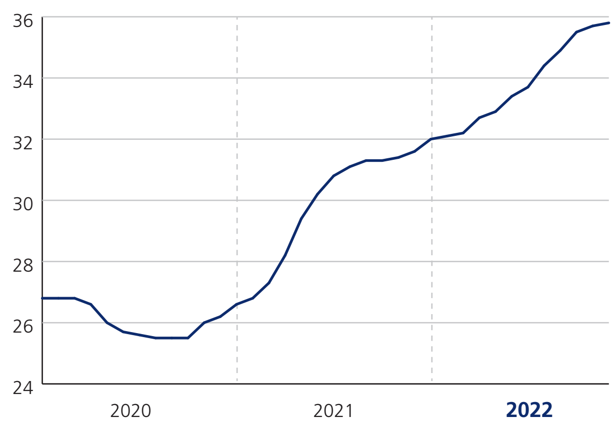
Demand in the **Americas** was particularly robust during the year, with vibrant local economies driving growth of 13% in North America (up 34% on 2019), and 4% in South America (up 20% on 2019).

THE REPLACEMENT TRUCK TIRE MARKET IN EUROPE
(in millions of new tires – moving 12 months – excluding Russia)



Michelin estimates.

THE REPLACEMENT TRUCK TIRE MARKET IN NORTH AMERICA
(in millions of new tires – moving 12 months)



Michelin estimates.

1.1.5 SPECIALTY TIRE MARKETS IN 2022

Mining tires: supply chains showed an improvement in the second quarter and demand for ore remains strong. Mining company tire inventory is still low, helping to lift the market.

Agricultural and Construction tires: demand for farm machinery tires rose sharply in OE markets, but was more mixed in Replacement, particularly in Europe.

In the Construction segment, the Infrastructure tire market, lifted by public spending, rose over the year in both the OE and Replacement segments, while the Compact Line market, which is more dependent on residential real estate, was down due to the uncertain economic environment.

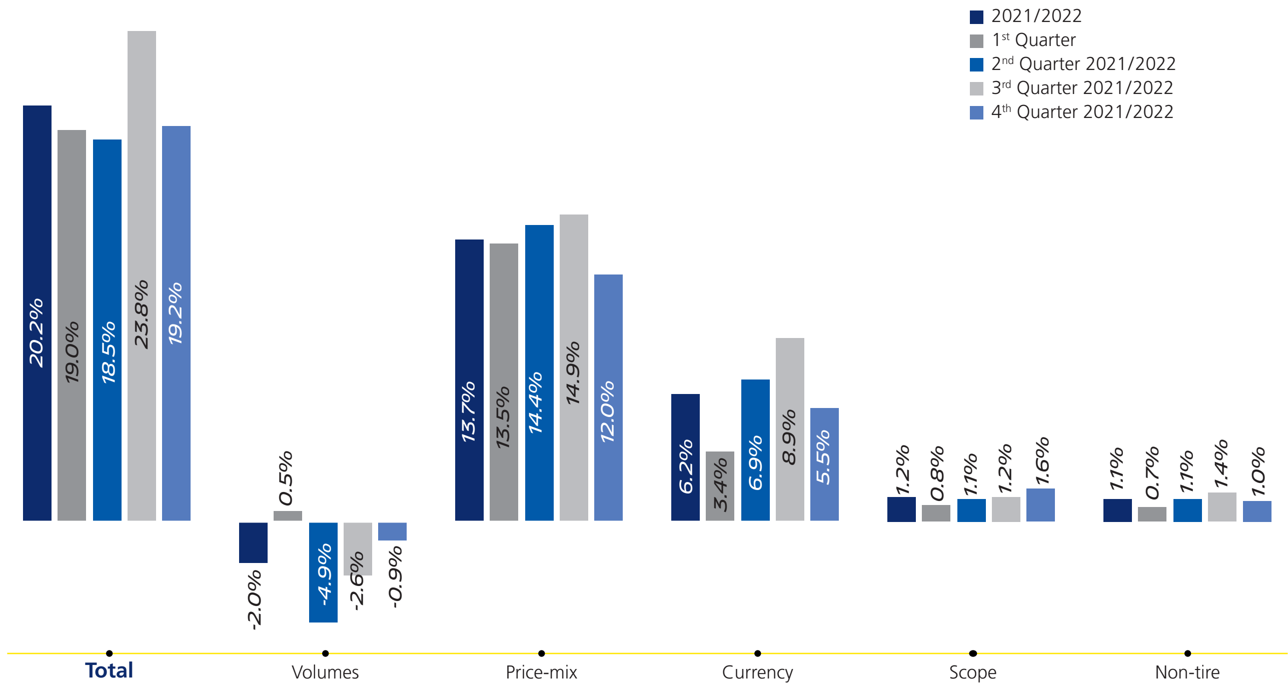
Two-wheel tires: demand increased year-on-year, but remained adversely impacted by rising dealer inventories as sell-out slowed in the second half and inflation eroded consumer purchasing power, particularly in the Leisure segment.

Aircraft tires: demand rose off still favorable prior-year comparatives, particularly in the Commercial and General Aviation segments.

Conveyor belts: the market remains robust in every region, both in the mining segment, driven by strong demand for commodities, and in the manufacturing segment, supported by high capital spending.

Specialty polymers: demand is continuing to expand in the leading markets, including industry, aerospace, energy and medical applications.

1.2 SALES



Sales stood at €28,590 million for the year, up 20.2% from the €23,795 million reported in 2021.

The year-on-year change reflected the combined impact of the following factors:

- a 2% unfavorable volume effect led, in an uncertain economic environment, by the discontinuation of the Group's operations in Russia as from March, the effects of the health crisis in China, particularly in the second and fourth quarters. The decrease in volumes was partially offset by brisk sales in the dealership networks owned by the Group;
- a 13.7% positive price-mix effect. The €3,054 million gain from prices reflected (i) the disciplined, assertive pricing policy applied in every segment to offset rising raw materials, energy, labor and other costs of sales; and (ii) the favorable impact of price adjustments in the indexed businesses. The €196 million positive mix effect reflected the priority focus on the MICHELIN brand and on high value-added products and services, as well as the growth in demand for 18-inch and larger tires;
- a 6.2% positive currency effect, due in particular to the sharp increase in the US dollar, as well as the Brazilian real, against the euro;
- a 1.2% increase from changes in the scope of consolidation, primarily attributable to the inclusion of Allopneus since December 30, 2021.

Sales from non-tire activities, which are more resilient and less dependent on supply chains, rose by 22% over the year, adding 1.1% to the growth in consolidated sales.

(in € millions and %)	2022	Second-half 2022	Fourth-quarter 2022	Third-quarter 2022	First-half 2022	Second-quarter 2022	First-quarter 2022
SALES	**28,590**	**15,301**	**7,858**	**7,443**	**13,289**	**6,808**	**6,481**
Change, year-on-year	**+4,795**	**+2,698**	**+1,267**	**+1,431**	**+2,097**	**+1,064**	**+1,033**
Volumes	-465	-214	-57	-157	-251	-279	+28
Price-mix	+3,250	+1,687	+791	+896	+1,563	+827	+736
Currency effect	+1,481	+901	+365	+536	+580	+394	+186
Scope of consolidation	+278	+172	+102	+70	+106	+62	+44
Non-tire sales	+251	+152	+66	+86	+99	+60	+39
Change, year-on-year	**+20.2%**	**+21.4%**	**+19.2%**	**+23.8%**	**+18.7%**	**+18.5%**	**+19.0%**
Volumes	-2.0%	-1.7%	-0.9%	-2.6%	-2.2%	-4.9%	+0.5%
Price-mix	+13.7%	+13.4%	+12.0%	+14.9%	+13.9%	+14.4%	+13.5%
Currency effect	+6.2%	+7.1%	+5.5%	+8.9%	+5.2%	+6.9%	+3.4%
Scope of consolidation	+1.2%	+1.4%	+1.6%	+1.2%	+0.9%	+1.1%	+0.8%
Non-tire sales	+1.1%	+1.2%	+1.0%	+1.4%	+0.9%	+1.1%	+0.7%

1.2.1 SALES BY REPORTING SEGMENT

Segment information is presented according to the following three operating segments:

- automotive and related distribution;
- road transportation and related distribution;
- specialty businesses and related distribution.

The Specialty businesses include the Mining, Beyond-road, Two-wheel and Aircraft tire activities, as well as the High-Technology Materials activities (conveyor belts, etc.). The Services & Solutions businesses are included for the most part in the "Road transportation and related distribution" segment.

Operating segment performance is measured primarily on the basis of sales and segment operating income, calculated according to the same measurement principles used in the consolidated income statement.

(in € millions)	2022	Second-half 2022	Fourth-quarter 2022	Third-quarter 2022	First-half 2022	Second-quarter 2022	First-quarter 2022
GROUP	**28,590**	**15,301**	**7,858**	**7,443**	**13,289**	**6,808**	**6,481**
Automotive and related distribution	14,138	7,539	3,900	3,639	6,599	3,345	3,254
Road transportation and related distribution	7,462	3,993	2,059	1,934	3,469	1,795	1,674
Specialty businesses and related distribution	6,990	3,769	1,899	1,870	3,221	1,668	1,553
Change, year-on-year	**+20.2%**	**+21.4%**	**+19.2%**	**+23.8%**	**+18.7%**	**+18.5%**	**+19.0%**
Automotive and related distribution	+17.8%	+17.1%	+14.9%	+19.7%	+18.6%	+16.6%	+20.8%
Road transportation and related distribution	+19.7%	+19.7%	+19.0%	+20.4%	+19.7%	+19.0%	+20.6%
Specialty businesses and related distribution	+25.6%	+33.1%	+29.5%	+37.0%	+17.9%	+22.0%	+13.7%

1.2.1.1 Automotive and related distribution – Analysis of sales

Sales in the Automotive and related distribution segment rose by 17.8% in 2022, while sales volumes declined by 4% over the year. After contracting 3.4% in the first half, hard hit by the war in Ukraine and the health situation in China, which led to a large number of lockdowns, volumes were down another 4.5% in the second six months, reflecting less favorable comparatives and the worldwide slowdown in demand caused by the economic environment.

In this disrupted environment, the Group focused on the highest value market segments, by continuing to broaden its product portfolio and develop its sales in the premium 18-inch and larger segment.

In addition, the successful deployment of an assertive, dynamic pricing policy demonstrated the Group's ability to leverage its technological leadership and brand recognition to drive higher sales at a time of significantly rising costs.

In addition to the positive price-mix effect, reported growth was boosted by the consolidation of Allopneus as from December 30, 2021.

In the **Original Equipment** segment, the Group defended its positions in a market that remained impacted by automaker difficulties, caused primarily by semi-conductor shortages. It also increased its share of the more profitable North American market.

After a highly disrupted first half, particularly in Europe due to shortages of components and parts relating to the conflict in Ukraine, the Group tracked the second-half rebound in business, benefiting from a favorable size mix as automakers focused on their premium models. Sales also continued to be lifted by growth in the electric vehicle segment, which was especially strong in 2022, spurred by the auto industry support plans deployed in a large number of countries. Backed by its technological leadership in the segment, the Group continues to enjoy significantly higher market share in original equipment electric vehicle tires than in internal combustion vehicle tires.

On the **Replacement** side, where markets were mixed in a highly inflationary global environment, the Group widened its market share in the most profitable 18-inch and larger tire segments and was able to raise prices assertively throughout the year in every geography. Except for a few highly localized situations, the successive price increases passed on by premium tiremakers during the year to offset cost inflation factors once again demonstrated Michelin's standing as the segment's price setter.

The sustained success of the MICHELIN Cross Climate 2, launched in fall 2021, attests to the Group's leadership in the all-season segment.

The Group also stepped up deployment of its distribution strategy by broadening its presence in online retailing channels, as seen in Allopneus's growth in France, and by continuing to expand its franchise network.

In the highly volatile **European** market, affected by the significant inflow of Asian imports as global supply chains began to improve in the summer, Group sales rose over the year, lifted by initiatives to focus on the most profitable segments and by disciplined pricing policies.

In the intermediate segment, Kléber brand sales enjoyed robust growth and continued to move upmarket.

The Group gained market share in **North and Central America**, but sales were still held back by production restrictions, caused in particular by hiring difficulties. Restructuring the TBC dealership network acquired in 2018 has provided the Group with particularly optimized, efficient market access and geographic coverage.

In **South America**, where fast-growing demand was spurred by non-pool imports, the Group defended its market share and continued to enhance its mix.

Group sales in **China** rose in an environment that was severely disrupted by lockdowns, particularly in the second quarter, and by the general economic uncertainty arising from the health situation. They suffered from an unfavorable geographic mix, however, as the lockdowns had a greater impact in the country's most economically developed metropolitan areas and regions.

In a **Southeast Asian** market that was up year-on-year, the Group increased its share and enjoyed a favorable mix, reflecting the stronger market share gains in the 18-inch and larger tire segment.

In the **Africa/India/Middle East region**, despite the difficulties caused by import restrictions in India and trade barriers in Egypt (mandatory letters of credit), the Group has stepped up its strategy of positioning itself in the higher value-added segments. This has yielded market shares in 18-inch and larger tires that are triple its aggregate market share in the African and Middle Eastern countries.

The **Michelin Experiences** business, which primarily operates in the fine dining, hospitality and travel segments, saw a sharp rebound in sales as health restrictions were lifted in a large number of countries. Michelin Experiences remains an unrivaled vehicle for promoting the MICHELIN brand and its premium positioning.

In all, sales in the Automotive and related distribution reporting segment rose by 17.8% to €14,138 million, from €11,998 million in 2021. While sales volumes declined by 4%, the price-mix effect was very positive over the year, led by the price increases diligently applied in every geography and the ability to meet growing demand for 18-inch and larger tires.

In the second half, despite a decline in Replacement volumes sold and an increase in OE volumes sold compared with the prior-year period, the Automotive and related distribution segment delivered a positive mix effect, reflecting the market's robust move up the value chain and the Group's ability to keep pace with this trend.

1.2.1.2 Road transportation and related distribution – Analysis of sales

Sales in the Road transportation and related distribution segment increased by 19.7% year-on-year.

Volumes sold edged up 0.4%, as flat growth in the first half turned slightly positive in the second half, reflecting the firm demand on high basis of comparison. In this environment, the Group significantly raised its prices to offset rising raw materials, energy, labor and other costs of sales and pursued its selective marketing strategy in value-creating segments, with a sharper focus on the MICHELIN brand.

In the **Original Equipment** segment, OEM output continued to trend upwards and the Group increased its market share, especially in North America. Environmental standards aimed at reducing CO_2 emissions and the difficulties in hiring truck drivers in Europe and North America are prompting trucking companies to upgrade their fleets more quickly. In addition, OEM demand for new solutions, for example built around battery or hydrogen fuel cell electric powertrains, are all opportunities for the Group to forge partnerships with OEMs and thereby demonstrate its technological leadership and knowledge of usage practices.

In the **Replacement** segment, new tire demand rose a strong 6%, excluding China, led by the still robust need for overland freight. In this buoyant environment, the Group focused on its value-added offerings, led by the MICHELIN brand and retreading solutions. The Services & Solutions businesses, particularly the new Michelin Connected Fleet brand rolled out in late 2021, maintained their steady pace of expansion during the year, particularly in geographies outside their home regions. While the passenger transportation market still suffered from travel restrictions, particularly in China and Southeast Asia, the robust growth of online shopping – a new consumer trend that looks set to stay – supported demand in most geographies in the last-mile delivery segment, where the MICHELIN Agilis 3 tire was a best seller.

In **Europe,** where demand rose sharply in the first half before cooling in the second, the Group applied an assertive pricing policy and targeted high value-added segments, while revitalizing its portfolio of retreading solutions.

In the **North American** market, which remained robust throughout the year, the Group's positions were once again adversely impacted by operating restrictions, stemming primarily from the serious labor shortages impacting the manufacturing industry. The Group focused on the MICHELIN brand and diligently offset every cost inflation factor with price increases in every segment. The fleet tire services business maintained its growth dynamic, with sales lifted sharply by the impact of price indexation clauses.

In **South America**, in a market that continued to expand but whose mix edged downmarket with the rise in imports, the Group strengthened its positions by prioritizing MICHELIN brand sales, particularly in Brazil.

Sascar's fleet management solutions remain on a growth trajectory, with a sustained up-market shift in the content of the portfolio.

In **Asia (excluding China)**, the Group continued to target market segments that value MICHELIN solutions for their technological content. In these more competitive markets, the Group diligently applied a dynamic pricing policy and maintained its share of the premium segment in high-value countries like Japan and Australia.

The Group consolidated its positions in the **Africa/India/ Middle-East** region. In India, the ongoing shift to radials, a segment where the Group can capitalize on its technological advantage, and the policy of scrapping older vehicles combined to drive higher sales volumes and improve the mix. Apart from Egypt, where sales were dampened by the new import regulations, Group sales rose in both Africa and the Middle East during the year.

In all, sales in the Road transportation and related distribution reporting segment amounted to €7,462 million, a 19.7% year-on-year increase that was led by firm volume growth, an assertive pricing policy and a more prominent positioning in value-creating segments.

1.2.1.3 Specialty businesses and related distribution – Analysis of sales

Surface mining tires: In a still expanding ore market, impelled by growing demand for metals, notably to support the energy transition, Group sales experienced two very different half-year periods in 2022. After a first half heavily impacted by disruptions in downstream supply chains, which slowed finished product shipments, and by the war in Ukraine, which impacted demand in Eastern Europe, the second half saw a sharp upturn, led by the recovery in maritime shipping capacity. The increased availability, along with the easing of operational difficulties in Group plants, significantly sped up finished product shipments. In addition, with most mining customer contracts containing raw materials indexation clauses applicable on July 1, the resulting price adjustments gave a major boost to segment sales in the second half.

Agricultural and Construction tires: Both segments delivered brisk growth in the first half, which benefited the Group.

However, both showed signs of cooling in the second half, with Construction tire sales hurt by the general slowdown in business and Agricultural tire sales suffering from the drought in Europe over the summer.

In this uncertain marketplace, Group sales were impacted by production difficulties, as well as by a more intense competitive environment.

Two-wheel tires: Despite unfavorable comparatives and a highly competitive environment, Group sales rose over the year, led by price increases applied to offset cost inflation factors. Introduced in January 2022, the new MICHELIN Road 6 motorcycle tire made a major contribution to both sales volumes and the mix.

Aircraft tires: The Commercial segment rebounded sharply from very favorable 2021 comparatives, in a still fragile environment impacted by the resurgence of Covid-19 in China, which continues to hold back growth in air traffic and tourism.

The Military and General Aviation segments, which were very resilient during the Covid-19 crisis, continued to hold up well.

Fenner's **conveyor belt** operations expanded over the year, driven by the Australian mining industry.

High Tech Materials businesses show a strong growth in every activity, in particular technical joints and precision polymers that benefit from the dynamism of energy markets.

In all, sales by the Specialty businesses reporting segment increased by 25.6% year-on-year, to €6,990 million. Due to the large proportion of US dollar-denominated sales, the currency's run-up against the euro had a particularly significant impact on sales.

1.2.2 CHANGES IN EXCHANGE RATES FOR THE MAIN OPERATING CURRENCIES

At current exchange rates, consolidated sales rose by 20.2% in 2022.

The increase includes a 6.2% (€1,481 million) gain from the currency effect, stemming from the increase in the US dollar, Brazilian real and Chinese yuan against the euro.

Average exchange rate	2022	2021	Change
Euro/USD	1.054	1.184	-10.9%
Euro/CNY	7.081	7.636	-7.3%
Euro/AUD	1.516	1.575	-3.7%
Euro/GBP	0.852	0.860	-1.0%
Euro/BRL	5.435	6.370	-14.7%
Euro/CAD	1.370	1.483	-7.6%
Euro/JPY	137.587	129.829	+6.0%
Euro/MXN	21.206	23.993	-11.6%
Euro/THB	36.874	37.791	-2.4%
Euro/TRY	17.209	10.187	+68.9%

Sales break down as follows by currency:

Currency	%	Currency	%
USD	39%	TRY	1%
EUR	31%	THB	1%
CNY	5%	Other	8%
BRL	4%		
GBP	3%		
AUD	3%		
CAD	3%		
JPY	1%		
MXN	1%		
TOTAL			**100%**

1.2.3 SALES BY REGION

(in € millions)	2022	2022/2021	Second-half 2022	First-half 2022
GROUP	**28,590**	**+20.1%**	**15,302**	**13,289**
Europe	10,140	+12.5%	5,239	4,901
of which France	2,484	+20.3%	1,300	1,184
North America (incl. Mexico)	10,920	+30.2%	5,938	4,982
Other regions	7,530	+17.8%	4,125	3,406

(in € millions)	2022	% of total	2021	% of total
GROUP	**28,590**		**23,795**	
Europe	10,140	35.5%	9,014	37.9%
of which France	2,484	8.7%	2,066	8.7%
North America (incl. Mexico)	10,920	38.2%	8,389	35.3%
Other regions	7,530	26.3%	6,392	26.9%

While consolidated sales rose in every region, gains were more pronounced in North America than in Europe and China, which were harder hit by the slowdown in volumes.

More than 60% of consolidated sales were generated outside Europe and more than 90% outside France.

IMPACT OF THE CONFLICT BETWEEN RUSSIA AND UKRAINE ON GROUP OPERATIONS IN 2022

The information presented below describes the impact of the conflict between Russia and Ukraine, which broke out on February 24, 2022, on the Group's operations during the year 2022.

THE GROUP'S EXPOSURE TO RUSSIA

Following on from an initial presence in the early 20th century, Michelin has been operating in Russia since 1997 and in 2004 was the first foreign tire manufacturer to open a plant there. Michelin Russia employs around 1,000 people, including 750 at the Davydovo plant, located about 100 kilometers from Moscow.

With production capacity of 1.5 to 2 million tires a year, mainly for passenger cars, the facility represents 1% of the Group's worldwide capacity in this segment.

Most of its output consists of mass-market sizes, intended primarily for the Russian market.

Michelin's sales in Russia, across every segment, accounted for around 2% of the consolidated total in 2021.

IMPACT OF THE CONFLICT ON GROUP OPERATIONS IN 2022

Before conflict broke out, Michelin, like every other tire manufacturer, sourced certain raw materials from Russia for its European production plants.

Given the procurement issues and supply chain disruptions ensuing from the conflict, and in order to optimize its operations, the Group announced in a press release on March 3, 2022 that it would stop production at some of its European plants for a few days in March. This very brief period of adjustment, which lasted an average of three days, enabled the Group to shift its priority focus to segments delivering higher value-added.

The deployment of alternative sourcing solutions helped to limit the operational impact, attesting to the effectiveness of the Group's business continuity procedures in addressing production interruption and supply continuity risks, as described in section 2 of the 2021 Universal Registration Document.

As a result, since the end of the first semester of 2022, none of the Group's operations are dependent on any Russian sourcing.

IMPACT OF THE CONFLICT ON GROUP OPERATIONS IN RUSSIA

In a press release issued on March 15, 2022, the Group announced that it was suspending its industrial operations in Russia as well as its exports to the country, due to the severe operational constraints arising from procurement difficulties, disrupted financial flows and currency instability.

In a June 28, 2022 press release, Michelin acknowledged the technical impossibility of resuming operations, in particular due to procurement difficulties in an environment of persistent, widespread uncertainty. As a result, it was compelled to dispose of all its operations in Russia by the end of the year.

Since this annoucement, the Group is still working on different exit scenarios, including the sale to a third-party.

At December 31, 2022, Russian subsidiaries are still controlled by the Group.

IMPACT ON THE GROUP'S FINANCIAL POSITION

The Group's balance sheet exposure to Russia before the recognition of impairment losses stood at 173 million.

At December 31, 2022, the Group recognized an impairment loss of €147 million corresponding to the partial write-down of its balance sheet exposure. Of this amount, €139 million was recognized in operating income unallocated to the operating segments and €8 million in a tax expense.

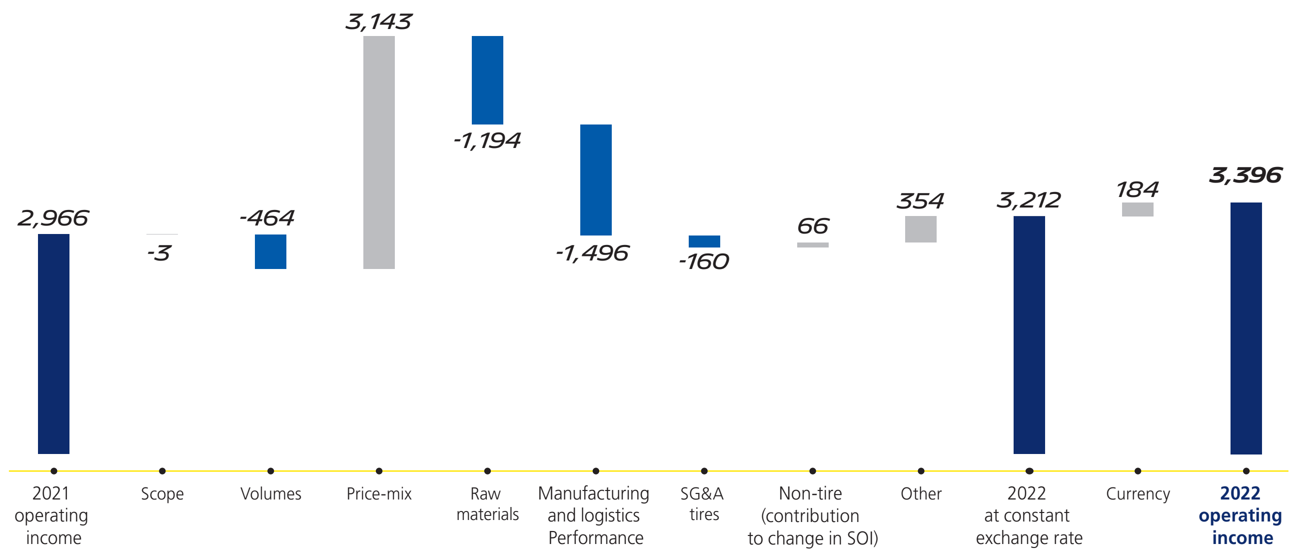
1.3 CONSOLIDATED INCOME STATEMENT REVIEW

(in € millions, except per share data)	2022	2021	2022/2021	2022 (as a % of sales)	2021 (as a % of sales)
Sales	28,590	23,795	+20.2%		
Cost of sales	(21,052)	(16,810)	+25.2%	73.6%	70.6%
Gross income	**7,538**	**6,985**	**+7.9%**	**26.4%**	**29.4%**
Sales and marketing expenses	(1,174)	(1,133)	+3.6%	4.1%	4.8%
Research and development expenses	(698)	(682)	+2.3%	2.4%	2.9%
General and administrative expenses	(2,244)	(2,137)	+5.0%	7.8%	9.0%
Segment other income and expenses	(26)	(67)	-61.2%	0.1%	0.3%
Segment operating income	**3,396**	**2,966**	**+14.5%**	**11.9%**	**12.5%**
Other operating income and expenses	(375)	(189)	+98.4%	1.3%	0.8%
Operating income	**3,021**	**2,777**	**+8.8%**	**10.6%**	**11.7%**
Cost of net debt	(239)	(192)	+24.5%	0.8%	0.8%
Other financial income and expenses	(22)	(4)	+450.0%	0.1%	0.0%
Net interest on employee benefit obligations	(45)	(41)	+9.8%	0.2%	0.2%
Share of profit/(loss) from equity-accounted companies	(59)	(69)	-14.5%	0.2%	0.3%
Income before taxes	**2,656**	**2,471**	**+7.5%**	**9.3%**	**10.4%**
Income tax	(647)	(626)	+3.4%	2.3%	2.6%
Net income	**2,009**	**1,845**	**+8.9%**	**7.0%**	**7.8%**
• Attributable to the shareholders of the Company	2,001	1,844	+8.5%	7.0%	7.7%
• Attributable to the non-controlling interests	8	1	+700.0%		
EARNINGS PER SHARE[1] *(in €)*					
• Basic	2.81	2.58	+8.8%		
• Diluted	2.79	2.56	+8.9%		

(1) 2021 earnings per share have been restated to reflect the four-for-one stock split on June 16, 2022.

1.3.1 ANALYSIS OF SEGMENT OPERATING INCOME

(in € millions)



(1) Segment operating income.

Segment operating income amounted to €3,396 million or 11.9% of sales for the year ended December 31, 2022, compared with €2,966 million and 12.5% in 2021.

The €430 million improvement reflected the net impact of the following factors:

- a very slight €3 million decrease from changes in the scope of consolidation, as the gain from including Allopneus was offset by the deconsolidation of Solesis in May 2021;
- a €464 million decrease reflecting:
  - a decline in volumes sold, as well as their breakdown between sell-in sales and sales by the dealership networks,
  - the fixed cost shortfall resulting from the decline in production in the second half;
- a robust €3,143 million increase from the favorable price-mix effect, reflecting highly assertive pricing management at a time of steeply rising raw material prices, energy costs and, especially in the first half, freight charges. Over the year, the favorable mix effect was supported by sustained growth in sales of 18-inch and larger tires in the Passenger car segment and the priority focus on the MICHELIN brand in Truck tires, as well as by the strong sales of mining tires in the second half;
- a €1,194 million decrease from the spike in the cost of materials consumed over the year, as well as in their shipping costs, particularly in the first half. Given that a significant proportion of raw materials purchases are US dollar-linked, the currency's strength against the euro also contributed to the higher input costs;
- a €1,496 million decrease from the rise in production and supply chain costs, with both production and finished product shipping costs strongly impacted by the increase in energy, transportation, labor and spare part costs;
- a €160 million decrease from the year-on-year growth in SG&A expenses (including research and development outlays) in the Tire operations, reflecting the impact of the upturn in business and especially in travel expenses, which in 2021 were still being held down by the global health situation. SG&A expenses ended the year at 2019 levels, even with the significant impact from inflation in 2022;
- a €354 million increase from other favorable cost factors, including an adjustment in variable compensation paid in respect to 2022;
- a €184 million gain from exchange rate movements, as the very favorable impact of the rise in the US dollar against the euro was attenuated by the unfavorable impact of the decline in some other currencies, most notably the Turkish lira.

In all, segment operating income at constant exchange rates totaled €3,212 million in 2022, in line with the guidance issued on February 14, 2022 targeting more than €3,200 million in segment operating income at constant exchange rates for the year.

Other operating income and expenses unallocated to the operating segments represented a net expense of €375 million in 2022 versus a net expense of €189 million in 2021. The €186 million increase mostly corresponded to the recognition of a €139 million impairment loss on the Group's balance sheet exposure to Russia, along with the €13 million cost of restructuring a UK-based Fenner business unit that primarily serves the Russian market.

Other operating income and expenses are described in more detail in note 9 to the consolidated financial statements.

1.3.2 SEGMENT OPERATING INCOME

Segment information is presented according to the following three operating segments:

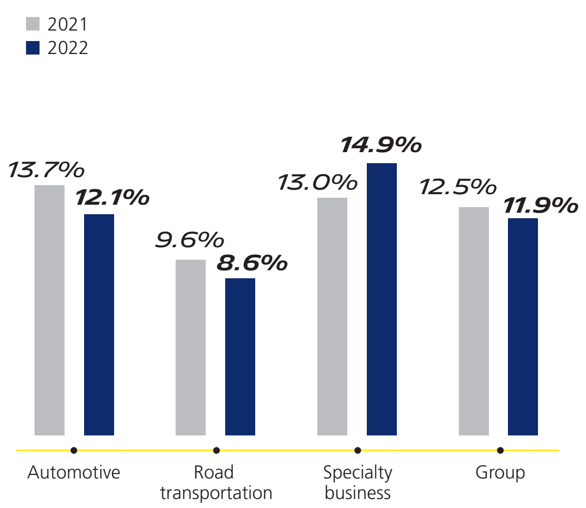
- automotive and related distribution;
- road transportation and related distribution;
- specialty businesses and related distribution.

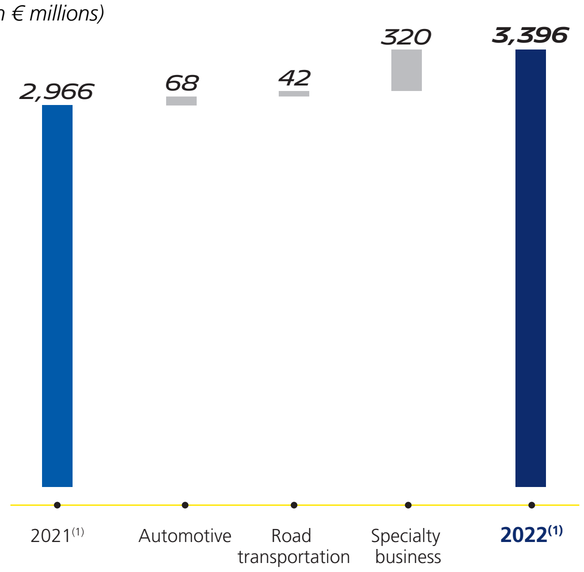
The Specialty businesses include the Mining, Beyond-road, Two-wheel and Aircraft tire activities, as well as the Conveyor Belt and High-Technology Materials activities. The Services & Solutions businesses are included for the most part in the "Road transportation and related distribution" segment.

Operating segment performance is measured primarily on the basis of sales and segment operating income, calculated according to the same measurement principles used in the consolidated income statement.

(in € millions)	2022	2021	Second-half 2022	First-half 2022
AUTOMOTIVE AND RELATED DISTRIBUTION				
Sales	14,138	11,998	7,539	6,599
Segment operating income	1,711	1,643	929	782
Segment operating margin	**12.1%**	**13.7%**	**12.3%**	**11.9%**
ROAD TRANSPORTATION AND RELATED DISTRIBUTION				
Sales	7,462	6,233	3,993	3,469
Segment operating income	641	599	327	314
Segment operating margin	**8.6%**	**9.6%**	**8.2%**	**9.1%**
SPECIALTY BUSINESSES & RELATED DISTRIBUTION				
Sales	6,990	5,564	3,769	3,221
Segment operating income	1,044	724	610	434
Segment operating margin	**14.9%**	**13.0%**	**16.2%**	**13.5%**
GROUP				
Sales	28,590	23,795	15,301	13,289
Segment operating income	3,396	2,966	1,866	1,530
Segment operating margin	**11.9%**	**12.5%**	**12.2%**	**11.5%**

1.3.2.1 Segment operating margin





(1) Segment operating income.

1.3.2.2 Automotive and related distribution – Analysis of segment operating income

Automotive and related distribution (in € millions)	2022	2021	2022/2021	2022 (% of consolidated total)	2021 (% of consolidated total)
Sales	14,138	11,998	+17.8%	49%	50%
Change in volumes	-4.0%				
Segment operating income	1,711	1,643	+4.1%	50%	55%
Segment operating margin	12.1%	13.7%	-1.6 pts		

Automotive segment operating income came to €1,711 million or 12.1% of sales, versus €1,643 million and 13.7% in 2021. At a time when sales volumes were dampened by the conflict in Eastern Europe and the health situation in China, segment operating income was lifted by the highly assertive pricing policy applied in every geography, which helped to offset the increase in raw material, supply chain and energy costs. The relative rebound in OE sales from September onwards, from a very favorable base, had a negative impact on the segment's mix in the second half, although this was tempered by the significant growth in sales of 18-inch and larger tires, in both the OE and the Replacement markets.

The decline in segment operating margin in percentage was mainly attributable to the dilutive effect of price increases.

Exchange rate movements had a positive impact on segment operating income.

1.3.2.3 Road transportation and related distribution – Analysis of segment operating income

Road transportation and related distribution *(in € millions)*	2022	2021	2022/2021	2022 (% of consolidated total)	2021 (% of consolidated total)
Sales	7,462	6,233	+19.7%	26%	26%
Change in volumes	0.4%				
Segment operating income	641	599	+7.0%	19%	20%
Segment operating margin	8.6%	9.6%	-1.0 pts		

Road transportation segment operating income amounted to €641 million or 8.6% of sales, compared with €599 million and 9.6% the year before.

Buoyed by resilient sales volumes, the selective marketing strategy focused on the MICHELIN brand and value-creating markets, along with the responsive price management, helped to offset the increase in raw materials, supply chain and energy costs and drive an improvement in segment operating income.

Segment performance was held back, however, by production constraints that prevented it from meeting all the demand, particularly in North America, where it was most robust.

The Services & Solutions businesses pursued their growth and geographic expansion under the new "Michelin Connected Fleets" umbrella brand.

The decline in segment operating margin in percentage was mainly attributable to the dilutive effect of price increases.

Exchange rate movements had a positive impact on segment operating income.

1.3.2.4 Specialty businesses and related distribution – Analysis of segment operating income

Specialty businesses and related distribution *(in € millions)*	2022	2021	2022/2021	2022 (% of consolidated total)	2021 (% of consolidated total)
Sales	6,990	5,564	+25.6%	24%	23%
Change in volumes	-0.5%				
Segment operating income	1,044	724	+44.2%	31%	24%
Segment operating margin	14.9%	13.0%	+1.9 pts		

Segment operating income from the Specialty businesses amounted to €1,044 million or 14.9% of sales, versus €724 million and 13.0% the year before. All the segment's businesses contributed to the gain for the year.

Surface mining tires: Group sales remained adversely affected in the first half by production and supply chain restrictions, which prevented the business from manufacturing and shipping all the tires demanded by the market. But as maritime shipping capacity recovered in the second half, sales returned to growth, helping to improve fixed cost absorption. Moreover, segment operating income was lifted by the application, over the second half, of the raw materials and shipping costs indexation clauses included in a large percentage of contracts with mining operators.

Agricultural and Construction tires: in markets that remained buoyant in the OE segment and more mixed in Replacement, particularly at year-end, operating income climbed steeply, led by the highly assertive pricing policy.

Two-wheel tires: in a more competitive environment, segment operating income held firm over the year, supported in particular by a responsive, dynamic pricing policy.

Aircraft tires: the strong recovery in sales, from very favorable comparatives, enabled the segment to deliver a significant improvement in operating income.

The conveyor belt business benefited from the generally positive growth in the industrial sector, particularly in the energy markets.

Exchange rate movements had a positive impact on segment operating income.

1.3.3 OTHER INCOME STATEMENT ITEMS

1.3.3.1 Raw materials

The cost of **raw materials** reported in cost of sales has been estimated at €6.7 billion in 2022 versus €5.0 billion in 2021.

It is calculated on the basis of:

- the price and mix of the Group's raw materials purchases;
- production and sales volumes;
- the valuation of raw materials, semi-finished and finished product inventories using the weighted average cost method. This method tends to spread fluctuations in purchase costs over time and delay their recognition in cost of sales, due to timing differences between the purchase of the raw materials and the sale of the finished product;
- exchange rate movements, which correspond to (i) the impact of converting the cost of purchases made in local currencies into the consolidation currency; and (ii) a residual currency effect resulting from the difference between the purchasing companies' local currency and the currency used to purchase their raw materials.

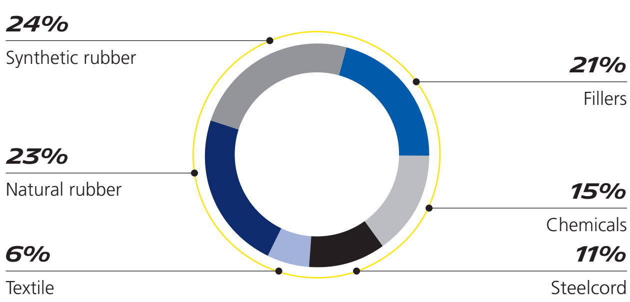
In 2022, the raw materials costs and the related transportation costs recognized in cost of sales included a €1,194 million unfavorable price impact, including a residual exchange rate effect.

Changes in prices feed through to the income statement five to six months later for natural rubber and around three months later for butadiene.

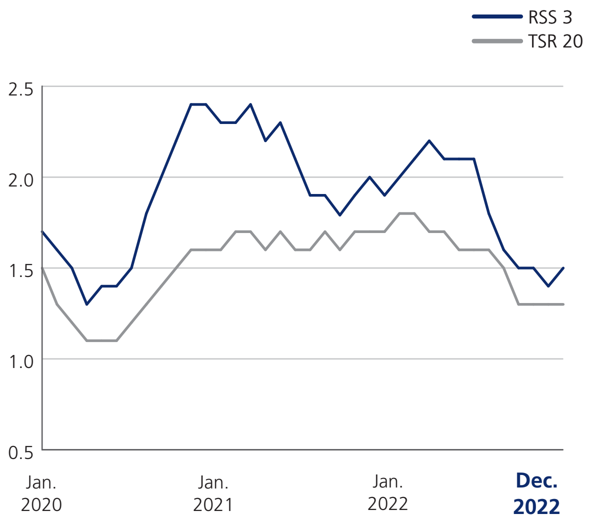
Based on estimated 2022 production volumes, the sensitivity of cash purchasing outlays to fluctuations in natural rubber and oil prices is as follows:

- a $0.10 per kg decrease in natural rubber prices would feed through to around an $90 million reduction in full-year purchasing costs;
- a $1.00 per barrel decline in oil prices would feed through to a $9 million decrease in full-year purchasing costs.

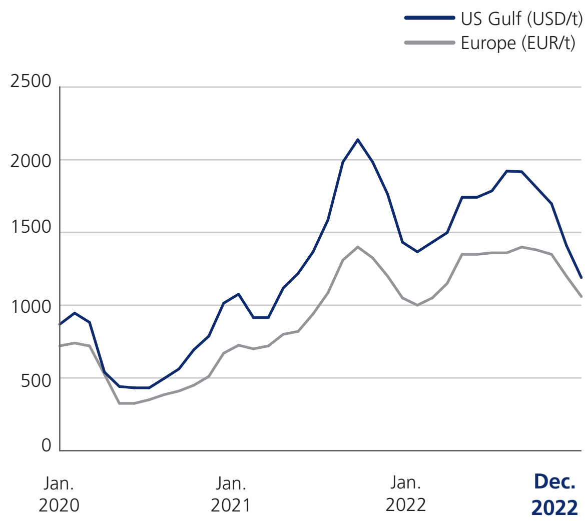
RAW MATERIALS RECOGNIZED IN 2022 COST OF SALES (€6.7 BILLION)



NATURAL RUBBER PRICES (SICOM)
(USD/kg)



BUTADIENE PRICES



1.3.3.2 Employee benefit costs and number of employees

Employee benefit costs came to €6,950 million or 24.3% of sales, up €505 million year-on-year, reflecting, in particular, adjustments in the compensation policy in response to high inflation. The decline in benefit costs as a percentage of sales was attributable to the more than 20% increase in sales over the year.

Headcount in high-cost regions, particularly in corporate functions, continued to decline as operating procedures were simplified across the Group.

The increase in the workforce over the year was mainly due to the integration in the second half of the employees of Indonesian company RLU, in which the Group raised its stake to 100% in July 2022[1].

In 2022, €6,938 million was recognized in segment operating income, and €12 million was recognized in other operating income and expenses.

(1) See note 4.1.1 to the consolidated financial statements.

(in € millions and number of people)	2022	2021	Change
Total employee benefit costs	6,950	6,445	+7.8%
As a % of sales	24.3%	27.1%	-2.8 pts
Employees on payroll at December 31	132,200	124,760	+6.0%
Number of full-time equivalent employees at December 31	124,900	118,400	+5.5%
Average number of full-time equivalent employees	121,700	117,600	+3.5%

1.3.3.3 Depreciation and amortization

(in € millions)	2022	2021	Change
Total depreciation and amortization	1,944	1,812	+7.3%
As a % of sales	6.8%	7.6%	

Depreciation and amortization charges rose by €132 million to €1,944 million for the year. The increase was attributable to the sharp upturn in capital expenditure after two years in which all planned capital projects could not be deployed, first due to the Covid-19 crisis and then to the shortages of semiconductors and materials, as well as the pervasive disruption in global supply chains.

Of the total, €1,866 million was recognized in segment operating income and €78 million in other operating income and expenses (see notes 6 and 9 to the consolidated financial statements).

1.3.3.4 Transportation costs

(in € millions)	2022	2021	Change
Transportation costs	2,056	1,685	+22.0%
As a % of sales	7.2%	7.1%	

Transportation costs came to €2,056 million in 2022, up 22% on 2021. This unusual increase at a time when sales volumes were slightly down for the year was caused by the steep rise in transportation costs across the logistics chain. Because a major portion of maritime shipping purchases are covered by contracts, the decline in spot prices as from the third quarter did not immediately feed through to the Group's logistics costs in 2022.

In addition, the shipping market is mainly denominated in US dollars, so the increase in the dollar against the euro throughout the year also weighed on transportation costs.

1.3.3.5 Sales and marketing expenses

Sales and marketing expenses represented 4.1% of sales in 2022, versus 4.8% in 2021. In value and on a like-for-like basis, they rose by €41 million year-on-year, primarily due to the upturn in business as travel restrictions were lifted in many countries around the world. Nevertheless, they remain lower than in 2019.

The decline on 2021 as a percentage of sales reflected the growth in consolidated sales, led by the price increases.

1.3.3.6 Research and development expenses

(in € millions)	2022	2021	Change
Research and development expenses	698	682	+2.3%
As a % of sales	2.4%	2.9%	

Research and development expenses rose by €16 million year-on-year to €698 million. This limited increase attested to the Group's commitment to maintaining its technological leadership in delivering performance and sustainability in its products and services. The Group is also continuing to optimize its research and development activities by deploying highly qualified centers of expertise in emerging markets, for example in India.

As a percentage of sales, R&D outlays declined to 2.4% from 2.9% in 2021, reflecting the price-led growth in consolidated sales.

1.3.3.7 General and administrative expenses

General and administrative expenses amounted to €2,244 million, a €107 million year-on-year increase that was primarily attributable to inflation.

They represented 7.8% of sales for the year, down 1.2 points compared with 2021.

1.3.3.8 Segment other income and expenses

Segment other operating income and expenses represented a net expense of €26 million in 2022, down from a net expense of €67 million in 2021 mainly as a result of the reduction in Covid-19-related expenditure.

1.3.3.9 Other operating income and expenses

Other operating income and expenses correspond to items that are not taken into account by Management when measuring the performance of the operating segments due to their nature or their significant, unusual or abnormal characteristics.

Other operating income and expenses represented a net expense of €375 million in 2022, versus a net expense of €189 million in 2021.

The €186 million year-on-year increase was primarily attributable to a €139 impairment loss recognized on the Group's assets in Russia(1) and a €13 million provision for restructuring a UK-based Fenner conveyor belt business that is highly exposed to Russia.

Other operating income and expenses are described in more detail in note 9 to the consolidated financial statements.

1.3.3.10 Cost of net debt

(in € millions)	**2022**	**2021**	**Change**
Cost of net debt	239	192	+47

At €239 million, the **cost of net debt** was up €47 million compared with 2021, mainly as a result of the following factors:

- a €79 million increase in net interest expense to €296 million, reflecting the net impact of:
  - a €13 million decrease due to the €505 million reduction in average gross debt during the year;
  - a €114 million increase from the rise in the average gross interest rate on borrowings to 4.1% in 2022 from 2.6% in 2021;
  - a €22 million increase in interest income, as higher interest rates offset the decline in financial investments;
- a €28 million improvement in the impact of exchange rate derivatives, due to the increase in US dollar interest rates over 2022;
- an aggregate €4 million decrease from movements in other factors.

1.3.3.11 Other financial income and expenses

(in € millions)	**2022**	**2021**	**Change**
Other financial income and expenses	22	4	+18

Other financial income and expenses represented a net expense of €22 million in 2022, an €18 million year-on-year increase caused mainly by currency movements, with foreign exchange accounting losses recognized in countries where it is impossible or too expensive to hedge, such as Argentina or Nigeria.

1.3.3.12 Income tax

(in € millions)	**2022**	**2021**	**Change**
Income/(loss) before taxes	2,656	2,471	+185
Income tax	**(647)**	**(626)**	**-21**
Current tax	(586)	(614)	+28
Withholding tax	(39)	(15)	-24
Deferred tax	(22)	3	-25

(1) See note 2.5 to the consolidated financial statements.

Income tax amounted to €647 million in 2022, a €21 million year-on-year increase. The €586 million in current tax recognized for the year corresponds to the income tax payable by the Group's profit-making companies.

The effective tax rate for 2022 was 24.4%, versus 25.3% the year before, in line with the standard Group rate.

1.3.3.13 Consolidated net income and earnings per share

(in € millions)	2022	2021	Change
Net income	2,009	1,845	+164
As a % of sales	7.0%	7.8%	-0.7 pts
• Attributable to the shareholders of the Company	2,001	1,844	+157
• Attributable to the non-controlling interests	8	1	+7
Earnings per share (in €)(1)			
• Basic	2.81	2.58	+0.23
• Diluted	2.79	2.56	+0.23

(1) 2021 earnings per share have been restated to reflect the four-for-one stock split on June 16, 2022.

Net income came to €2,009 million for the year, or 7.0% of sales, compared with €1,845 million in 2021 or 7.8% of sales.

The €164 million increase reflected the following factors:

- favorable factors:
  - the €430 million increase in segment operating income,
  - the €10 million increase in the Group's share of profit from equity-accounted companies, corresponding to amounts that individually were not material;
- unfavorable factors:
  - the €186 million increase in other operating expenses unallocated to the operating segments, corresponding primarily to the impairment losses recognized on the Group's assets in Russia,
  - the €69 million increase in net financial expense, due in particular to the €47 million increase in the cost of net debt and the €18 million increase in financial expense,
  - the €21 million increase in income tax expense.

1.4 CONSOLIDATED BALANCE SHEET REVIEW

Methodological note: translation adjustments primarily stem from the translation into euros of prior-year assets and liabilities at the closing exchange rate.

As explained in notes 2.7 and 3.8 to the consolidated financial statements, the Group manages tire fleets of customers operating commercial vehicle fleets. To better reflect the terms of some of these contracts and their economic reality, the Group has decided to no longer recognize inventory or a corresponding operating liability to the customer for tires mounted on vehicles under these contracts. Comparative information at December 31, 2021 has been restated for an amount of €157 million.

The change has no impact on the consolidated income statement and statement of cash flows for either 2022 or 2021.

ASSETS

(in € millions)	December 31, 2022	December 31, 2021	Total change	Translation adjustments	Movement
Goodwill	2,430	2,286	+144	+89	+55
Intangible assets	1,803	1,811	-8	-3	-5
Property, plant and equipment	12,136	11,231	+905	+313	+592
Right-of-use assets	1,010	1,034	-24	+24	-48
Non-current financial assets and other non-current assets	1,161	1,404	-243	+3	-246
Investments in equity-accounted companies	1,102	1,103	-1	+45	-46
Deferred tax assets	630	751	-121	+8	-129
Non-current assets	**20,272**	**19,620**	**+652**	**+479**	**+173**
Inventories[1]	6,318	5,115	+1,203	+132	+1,071
Trade receivables	4,205	3,576	+629	+52	+577
Current financial assets	652	713	-61	0	-61
Other current assets	1,315	1,038	+277	+38	+239
Cash and cash equivalents	2,584	4,482	-1,898	-25	-1,873
Current assets	**15,074**	**14,924**	**+150**	**+197**	**-47**
TOTAL ASSETS	**35,346**	**34,544**	**+802**	**+676**	**+126**

(1) To better reflect the economic reality of its tire fleet management contracts with certain corporate customers, the Group has decided to no longer recognize inventory or a corresponding operating liability to the customer for the tires mounted on vehicles under these contracts. Comparative information at December 31, 2021 has been restated for an amount of €157 million. The change has no impact on the consolidated income statement and statement of cash flows for either 2022 or 2021. See notes 2.7 and 3.8 to the consolidated financial statements.

EQUITY AND LIABILITIES

(in € millions)	December 31, 2022	December 31, 2021	Total change	Translation adjustments	Movement
Share capital	357	357	-	-	-
Share premiums	2,702	2,746	-44		-44
Reserves	14,051	11,871	+2,180	+387	+1,793
Non-controlling interests	6	(3)	+9	-1	+10
Total equity	**17,116**	**14,971**	**+2,145**	**+386**	**+1,759**
Non-current financial liabilities	4,705	5,360	-655	+3	-658
Non-current lease liabilities	690	731	-41	+18	-59
Provisions for employee benefit obligations	2,561	3,362	-801	+47	-848
Provisions and other non-current liabilities	695	759	-64	+11	-75
Deferred tax liabilities	541	503	+38	+2	+36
Non-current liabilities	**9,192**	**10,715**	**-1,523**	**+80**	**-1,603**
Current financial liabilities	1,826	1,682	+144	+27	+117
Current lease liabilities	233	229	+4	+5	-1
Trade payables	3,416	3,174	+242	+74	+168
Trade payables under reverse factoring agreements	595	613	-18	+28	-46
Provisions and other current liabilities[1]	2,968	3,160	-192	+77	-269
Current liabilities	**9,038**	**8,858**	**+180**	**+211**	**-31**
TOTAL EQUITY AND LIABILITIES	**35,346**	**34,544**	**+802**	**+676**	**+126**

(1) To better reflect the economic reality of its tire fleet management contracts with certain corporate customers, the Group has decided to no longer recognize inventory or a corresponding operating liability to the customer for the tires mounted on vehicles under these contracts. Comparative information at December 31, 2021 has been restated for an amount of €157 million. The change has no impact on the consolidated income statement and statement of cash flows for either 2022 or 2021. See notes 2.7 and 3.8 to the consolidated financial statements.

1.4.1 GOODWILL

Goodwill before translation adjustments was up €55 million from December 31, 2021, primarily due to the following factors:

- the recognition of €46 million in goodwill on all the outstanding shares of Indonesian company RLU, whose acquisition on July 27, 2022 raised the Group's holding in the company to 100%[(1)];
- the recognition of €40 million in goodwill on the acquisition, on July 14, 2022, of Australia-based Conveyor Products & Solutions (CPS),[(2)] a world leader in the development and manufacture of conveyors for the mining market;
- the €36 million impact of recognizing in amortizable intangible assets the goodwill resulting from the final allocation of the purchase price of Allopneus, acquired on December 30, 2021[(3)].

1.4.2 INTANGIBLE ASSETS

Intangible assets stood at €1,803 million for the year, a €5 million decrease from December 31, 2021 before translation adjustments. The stability reflected the fact that additions to intangible assets were more or less in line with amortization charges for the year, particularly in the domain of software.

1.4.3 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment stood at €12,136 million at December 31, 2022, up €592 million before translation adjustments. The growth over the year reflected the monitored increase in capital expenditure after the difficulties encountered in 2020 and 2021 in completing all the planned capital projects, due to the health situation and subsequent supply chain disruptions and shortages of spare parts.

Additions to property, plant and equipment amounted to €1,919 million for the year, compared with €1,494 million in 2021. Around 70% of total outlays were committed to production equipment and facilities.

In addition, the acquisition of all outstanding shares of RLU increased the property, plant and equipment base.

1.4.4 RIGHT-OF-USE ASSETS

Beginning in 2020, **right-of-use assets** have been recognized separately from property, plant and equipment.

They amounted to €1,010 million at December 31, 2022, down €48 million year-on-year (before translation adjustments), due to the fact that new leases did not exceed depreciation on prior-year leases.

1.4.5 NON-CURRENT FINANCIAL ASSETS AND OTHER NON-CURRENT ASSETS

Non-current financial assets and other non-current assets stood at €1,161 million at year-end, a €246 million decrease (before translation adjustments) that was attributable mainly to the net decline in loans and deposits stemming from:

- a partial repayment of an investment deposited in an escrow account to fund pension obligations in the United Kingdom. This amount is pledged to the pension plans and is therefore not freely available to the Group;
- the reclassification in current financial assets of a loan to the North American dealership joint venture TBC.

1.4.6 INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES

Excluding translation adjustments, **investments in equity-accounted companies** declined by €46 million over the year to €1,102 million. The decrease mainly reflected the disposal of the Group's 20% stake in German auto service center chain ATU.

(1) See note 4.1.1 to the consolidated financial statements.
(2) See note 4.1.2 to the consolidated financial statements.
(3) See note 4.2.1 to the consolidated financial statements.

1.4.7 DEFERRED TAX

At December 31, 2022, the Group held a **net deferred tax asset** of €89 million, representing a year-on-year decline of €165 million (before the translation adjustment). The reduction was mostly attributable to the decrease in taxes recorded in other comprehensive income in respect of post-employment benefit obligations.[1]

1.4.8 TRADE WORKING CAPITAL

(in € millions)	December 31, 2022	December 31, 2021	Change	2022 (as a % of sales)	2021 (as a % of sales)
Inventories	6,318	5,115	+1,203	22.1%	21.5%
Trade receivables	4,205	3,576	+629	14.7%	15.0%
Trade payables	(3,416)	(3,174)	-242	(11.9)%	(13.3)%
Trade payables under reverse factoring agreements	(595)	(613)	+18	(2.1)%	(2.6)%
TRADE WORKING CAPITAL	**6,512**	**4,904**	**+1,608**	**22.8%**	**20.6%**

Trade working capital requirement rose by €1,608 million in a time of high inflation.

At €6,318 million, **inventories** represented 22.1% of sales at year-end. The €1,203 million year-on-year increase was led by the following factors:

- the €132 million unfavorable currency effect;
- a €1,071 million increase in inventories, due to the sharp run-up in the price of raw materials, energy, transportation and other production inputs. In volume terms, finished product inventories declined over the year reflecting efficient management and the structural initiatives undertaken in 2022 in an exceptionally inflationary environment.

Trade receivables stood at €4,205 million or 14.7% of sales, a year-on-year increase of €629 million, of which €52 million in translation adjustments. As a percentage of sales, they declined 0.3 points year-on-year, attesting to the Group's highly disciplined credit policies at a time of rising prices.

Trade payables, including those **covered by reverse factoring contracts**, ended the year at €4,011 million, or 14.0% of sales, down 1.9 points from December 31, 2021. The decline primarily stemmed from the reduction in purchased input volumes as from the middle of the third quarter.

1.4.9 CASH AND CASH EQUIVALENTS

Cash and cash equivalents stood at €2,584 million, down €1,873 million year-on-year excluding translation adjustments, as a result of the following main factors:

- decreases from:
  - the negative €180 million in free cash flow,
  - the €951 million reduction in debt during the year, mainly due to the redemption of the €523 million convertible bond maturing in January 2022, as well as the redemption of the bond maturing in May 2022, redeemed early in March 2022, for €300 million;
  - the payment of €809 million in dividends and other distributions;
- increases from:
  - €66 million in various favorable items.

(1) Note 18.1 to the consolidated financial statements.

1.4.10 TOTAL EQUITY

Including the positive €386 million in translation adjustments, **total equity** rose by €2,145 million over the year to represent €17,116 million at December 31, 2021.

The €1,759 million increase excluding translation adjustments was primarily due to the following factors:

- the €2,589 million increase in comprehensive income for the year, including:
  - €2,009 million in net income,
  - the €672 million favorable impact from post-employment benefit obligations,
  - the €132 million unfavorable impact from taxes payable on post-employment benefit obligations,
  - €40 million in other favorable items;
- the €809 million impact from dividend and other payments;
- the €20 million favorable impact from service costs on performance share plans;
- the buyback of existing Company shares, in an amount of €120 million, to offset the new shares issued under performance share plans, as well as shares issued at a preferential price under employee share ownership plans;
- €79 million arising from other factors, most of which (€76 million) came from the issue of new shares as part of the 2022 employee share ownership plan.

At December 31, 2022, the **share capital** of Compagnie Générale des Établissements Michelin stood at €357,058,707, comprising 714,117,414 shares outstanding corresponding to 978,544,459 voting rights[(1)].

1.4.11 NET DEBT

Net debt stood at €4,320 million at December 31, 2022, up €1,531 million from December 31, 2021, mainly as a result of the following factors:

- the negative €180 million in free cash flow;
- €809 million in distributions, of which €803 million in dividends;
- €120 million in share buybacks, as mentioned in section 1.4.10;
- €76 million in proceeds from the 2022 employee share ownership plan;
- a €198 million increase from the recognition of new leases;
- a €193 million increase from the full consolidation of RLU and other changes in the scope of consolidation[(2)];
- a €77 million increase from translation adjustments.

CHANGES IN NET DEBT

(in € millions)	December 31, 2022	December 31, 2021
At January 1	**2,789**	**3,531**
Free cash flow[(1)] before M&A	+67	-1,460
Investments in new ventures	+76	+107
Financing of joint ventures and associates	+37	-4
Free cash flow[(1)]	**+180**	**-1,357**
Distributions and other	+809	+415
Share buybacks	+120	-
Employee share issue – Bib'Action	-76	-
New leases	+198	+167
Changes in scope of consolidation	+193	+17
Translation adjustments	+77	+83
Other	+30	-67
AT DECEMBER 31	**4,320**	**2,789**
CHANGE	**+1,531**	**-742**

(1) See definition in section 1.5.3.

1.4.11.1 GEARING

Gearing rose to 25.2% at December 31, 2022 from 18.6% at year-end 2021, primarily due to the year-on-year increase in net debt, as equity also rose, led by the growth in comprehensive income for the year.

(1) Shares and voting rights outstanding restated to reflect the four-for-one stock split on June 16, 2022.
(2) See note 4.1.1 to the consolidated financial statements.

1.4.11.2 Credit ratings

The solicited corporate credit ratings of Compagnie Générale des Établissements Michelin (CGEM), Compagnie Financière Michelin SA and CFM Suisse SA are as follows:

		CGEM	Compagnie Financière Michelin SA	CFM Suisse
Short term	Standard & Poor`s	A-2	A-2	A-2
	Fitch Ratings	F2	F2	F2
Long term	Standard & Poor`s	A-	A-	A-
	Fitch Ratings	A-	A-	A-
Outlook	Standard & Poor`s	Stable	Stable	Stable
	Fitch Ratings	Stable	Stable	Stable

Moody's, whose rating has not been solicited since July 1, 2020, nevertheless affirmed CGEM's "A3" long-term credit rating and "stable" outlook on March 19, 2022.

1.4.12 PROVISIONS

Provisions and other non-current liabilities declined by €64 million over the year, to €695 million from €759 million at December 31, 2021. Excluding the positive €11 million in translation adjustments, the decrease amounted to €75 million, stemming from (i) payments out of restructuring provisions set aside in prior years, partially offset by new provisions written as part of restructuring plans, in particular the French simplification and competitiveness plan announced on January 6, 2021; and (ii) the reclassification of certain short-term provisions as current liabilities.

1.4.13 EMPLOYEE BENEFIT OBLIGATIONS

CHANGE IN THE FAIR VALUE OF THE NET DEFINED BENEFIT OBLIGATION

(in € millions)	Pension plans	Other plans	2022	2021
At January 1	**1,256**	**1,774**	**3,030**	**3,489**
Contributions paid to the funds	(13)	(6)	(19)	(19)
Benefits paid directly to the beneficiaries	(38)	(64)	(102)	(119)
Other movements	-	2	2	(3)
ITEMS RECOGNIZED IN OPERATING INCOME				
Current service cost	32	75	107	111
Actuarial (gains) or losses recognized on other long-term benefit plans	-	(8)	(8)	(8)
Effect of plan amendments, curtailments or settlements	(61)	(55)	(116)	(170)
Other items	9	-	9	7
ITEMS RECOGNIZED OUTSIDE OPERATING INCOME				
Net interest on employee benefit obligations	9	30	39	41
ITEMS RECOGNIZED IN OTHER COMPREHENSIVE INCOME				
Translation adjustments	21	39	60	52
Actuarial (gains) or losses	(189)	(456)	(655)	(389)
Unrecognized assets due to the effect of the asset ceiling	(21)	4	(17)	38
AT DECEMBER 31	**1,005**	**1,325**	**2,330**	**3,030**

The net defined benefit obligation recognized at December 31, 2022 stood at €2,330 million, a year-on-year decrease of €700 million as reported and of €760 million excluding the positive €60 million translation adjustment (stemming primarily from the increase in the US dollar against the euro).

The decline in the net defined benefit obligation reflected the following main factors:

- the total €121 million in contributions and benefits paid in 2022 (2021: €138 million), of which:
  - €19 million in contributions paid to fund management institutions (2021: €19 million),
  - €102 million in benefits paid directly to employees (2021: €119 million);
- a €107 million expense recognized in operating income in 2022 (2021: €111 million) that primarily resulted from the cost of defined benefit plans;
- a €116 million gain recognized in operating income (2021: €170 million), of which €118 million stemming from the French simplification and competitiveness plan announced on January 6, 2021;
- the €39 million in net interest expense on the net defined benefit obligation, recognized outside of operating income (2021: €41 million);
- the €655 million in actuarial gains recorded in 2022 (2021: actuarial gains of €389 million), which corresponded to:
  - €2,608 million in actuarial gains on defined benefit obligations, resulting mainly from increases in discount rates,
  - €1,953 million in actuarial losses on plan assets, due to the fact that the actual rate of return on plan assets was lower than the discount rate.

In addition, contributions paid by the Group to defined contribution plans amounted to €253 million in 2022, up €35 million on 2021.

1.5 CONSOLIDATED CASH FLOW STATEMENT REVIEW

1.5.1 CASH FLOW FROM OPERATING ACTIVITIES

(in € millions)	2022	2021	Change
Segment EBITDA	**5,262**	**4,700**	**+562**
Change in net inventories	-1,055	-1,106	+51
Change in net trade receivables	-746	-370	-376
Change in net trade payables	+9	+647	-638
Restructuring cash costs	-181	-214	+33
Other changes in provisions	-53	+13	-66
Tax and interest paid	-1,020	-769	-251
Other	-285	+5	-290
NET CASH FROM OPERATING ACTIVITIES	**1,931**	**2,906**	**-975**

At €5,262 million, or 18.4% of sales, segment **EBITDA** was up €562 million compared with 2021 (at 19.8% of sales), reflecting the €430 million increase in segment operating income over the year.

Net cash from operating activities declined by €975 million to €1,931 million for the year, as the €562 million increase in EBITDA was more than offset by:

- a €963 million decrease from the rise in trade working capital, which was lifted by the major impact of inflation on inventory value and of price increases on trade receivables;
- a €251 million decrease from the higher tax and interest paid;
- an aggregate €290 million decrease from other factors.

Restructuring-related outlays declined by €33 million over the year.

1.5.2 CAPITAL EXPENDITURE

(in € millions)	2022	2021	2022/2021	2022 (as a % of sales)	2021 (as a % of sales)
Additions to intangible assets and PP&E	**2,141**	**1,705**	**+436**	**7.5%**	**7.2%**
Investment grants received and change in capital expenditure payables	(100)	(226)	+126	(0.3)%	(0.9)%
Proceeds from sales of intangible assets and PP&E	(33)	(38)	+5	(0.1)%	(0.2)%
NET ADDITIONS TO INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT	**2,008**	**1,441**	**+567**	**7.1%**	**6.1%**

Additions to intangible assets and property, plant and equipment amounted to €2,141 million in 2022, compared with €1,705 million in 2021.

Capital expenditure committed during the year was in line with the Group's announced objective of implementing a portion of the capital programs that could not be carried out in 2020 and 2021, first due to the Covid-19 crisis and then to supply chain disruptions and shortages of components and spare parts.

By Business Line, the main capital projects completed during the year or still underway as part of competitiveness, product line renewal and growth investment programs are as follows:

Automotive tires:

- in Mexico;

Road transportation tires:

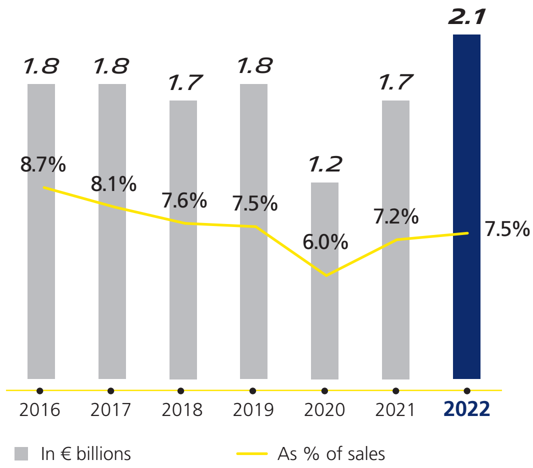
- in Romania;

Specialty products:

- Mining tires;
- Beyond-road tires (Agricultural, Construction, Materials Handling);
- Two-wheel tires.

All these capital projects were supported by the commitments presented below.

CAPITAL EXPENDITURE
(in € billions)



"Investments grants received and change in capital expenditure payables" corresponds mainly to changes in capital expenditure payables.

1.5.3 AVAILABLE CASH FLOW AND FREE CASH FLOW

Available cash flow corresponds to cash flow from recurring operating activities, i.e., after routine capital expenditure but before competitiveness, growth and new-venture investments.

Free cash flow, which is stated before dividend payments and financing transactions, corresponds to net cash from operating activities less net cash used in investing activities, adjusted for net cash flows relating to cash management financial assets and borrowing collaterals.

To better reflect the economic reality of the Group's capital expenditure outlays, their presentation was changed in 2022 to distinguish between "routine capital expenditure" and "competitiveness and growth investments."

For comparison purposes, 2021 data have been restated according to the new presentation.

(in € millions)	2022	2021 (restated)	Exercice 2021 publié
Net cash from operating activities	1,931	2,906	2,906
Routine capital expenditure (maintenance, IT, dealerships, etc.)	(744)	(521)	(1,189)
AVAILABLE CASH FLOW	**1,187**	**2,385**	**1,717**
Competitiveness and growth investments	(1,202)	(1,049)	(381)
Investments in new ventures	(194)	(135)	(135)
Acquisitions	(76)	(107)	(107)
Other	105	263	263
FREE CASH FLOW	**(180)**	**1,357**	**1,357**

After subtracting €744 million in routine capital expenditure, available cash flow stood at €1,187 million for the year ended December 31,

Free cash flow was negative, at €180 million, after outlays of €1,202 million in competitiveness and growth investments and €135 million in investments in new ventures. The €76 million in acquisitions for the year chi includes the purchase of all outstanding shares of RLU, raising the stake to 100%,[1] and the acquisition of Conveyor Products & Solutions (CPS)[2] in Australia, less the proceeds from the sale of the Group's minority interest in the German auto service center chain ATU.

1.5.4 STRUCTURAL FREE CASH FLOW

To track its intrinsic performance, Michelin has set targets based on its structural free cash flow, which is defined as free cash flow before acquisitions and adjusted for the impact of movements in raw materials prices on trade receivables, trade payables and inventories.

With €378 million in structural free cash flow in 2022, the Group fell short of the guidance issued on October 25, 2022 targeting around €700 million for the year.

This was primarily attributable to timing differences caused by:

- a shift in customer payments initially scheduled for end-2022 to first-quarter 2023, due mainly to the more pronounced sales seasonality at year-end;
- a managed reduction in purchases starting in the final quarter to align inventory with changing demand, whose favorable impact on supplier payments will appear only in early 2023.

These temporary differences do not affect the Group's intrinsic ability to generate free cash flow.

(in € millions)	2022	2021
FREE CASH FLOW	**(180)**	**1,357**
Acquisitions	76	107
FREE CASH FLOW EXCLUDING ACQUISITIONS & DISPOSALS	**(104)**	**1,464**
Impact of raw materials costs on working capital	482	329
STRUCTURAL FREE CASH FLOW	**378**	**1,793**

1.6 RETURN ON CAPITAL EMPLOYED (ROCE)

The return on capital employed by the Group is measured by dividing net operating profit after tax (NOPAT) by the average economic assets employed during the year.

For the NOPAT calculation, amortization of acquired intangible assets and Group's share of profit/(loss) from equity-accounted companies are added to the segment operating income.

For 2022, the theoretical tax liability was calculated at a standard rate of 25%, the same as in 2020 and 2021, which corresponds to the Group's normal average effective tax rate.

Non-euro currencies are translated at year-end rates for balance sheet items and average rates for income statement items.

If ROCE is greater than weighted average cost of capital (WACC) for the year, then the Group has created value during the period.

Based on a theoretical balance between equity and debt, depending on the financed assets, the Group's weighted average cost of capital (WACC) was estimated at 9%, which is in line with external benchmarks. The rates used are determined (i) for equity capital, based on the yield on Michelin shares expected by the stock markets; and (ii) for debt capital, on the market risk-free rate plus the risk premium applied to Michelin by the markets, as adjusted for the tax effect.

(1) See note 4.1.1 to the consolidated financial statements.
(2) See note 4.1.2 to the consolidated financial statements.

(in € millions)	2022	2021
Segment operating income restated for ROCE calculation	3,258	2,819
Average standard income tax rate used for ROCE calculation	25%	25%
Segment operating income after tax (NOPAT)	**2,444**	**2,114**
Economic assets at December 31	24,138	21,201
Average economic assets	**22,621**	**20,496**
Consolidated ROCE	**10.8%**	**10.3%**

1.7 TREND INFORMATION

1.7.1 OUTLOOK

In 2023, in a context of strong economic uncertainties, tires markets should remain globally stable compared to 2022 on the three business segments (Passenger car and Light truck, Truck, Specialty).

In this environment, the Group expects an evolution of its volumes sold between -4% and 0% compared to 2022.

The Group also anticipates a significantly negative impact of inflation (raw materials, transportation, energy, labor) on its 2023 results. Further enhancement of its mix and disciplined implementation of its pricing policy are nevertheless expected to have a positive impact on the Group's results and offset the increase in cost inflation factors.

Based on this scenario, Michelin's objectives are to deliver full-year segment operating income in excess of €3.2 billion at constant exchange rates and a free cash flow before M&A of more than €1.6 billion.

This outlook has been established and prepared on a basis comparable to historical financial information and in accordance with the accounting methods described following this chapter.

1.7.2 RECENT EVENTS

No material events occurred between the reporting date and the date when the consolidated financial statements were approved for publication by the Managing Chairman.

1.8 SHARE INFORMATION

1.8.1 THE MICHELIN SHARE

Stock split

At the Annual Shareholders Meeting of May 13, 2022, shareholders approved a four-for-one split in the par value of the Michelin share. On May 16, 2022, the Managers decided to carry out the split effective June 16, 2022. As a result, for each existing share with a par value of €2.00 held on that date, shareholders received four new shares with a par value of €0.50 in exchange, and the total number of shares making up the capital was multiplied by four.

Traded on the Euronext Paris stock exchange

- Compartment A;
- Eligible for the SRD deferred settlement system;
- ISIN: FR 001400AJ45;
- Par value: €0.50;
- Traded in units of: 1.

Indices

The Michelin share is included in two leading stock market indices:

- CAC 40: 1.26% of the index at December 31, 2022;
- Euronext 100: 0.52% of the index at December 31, 2022.

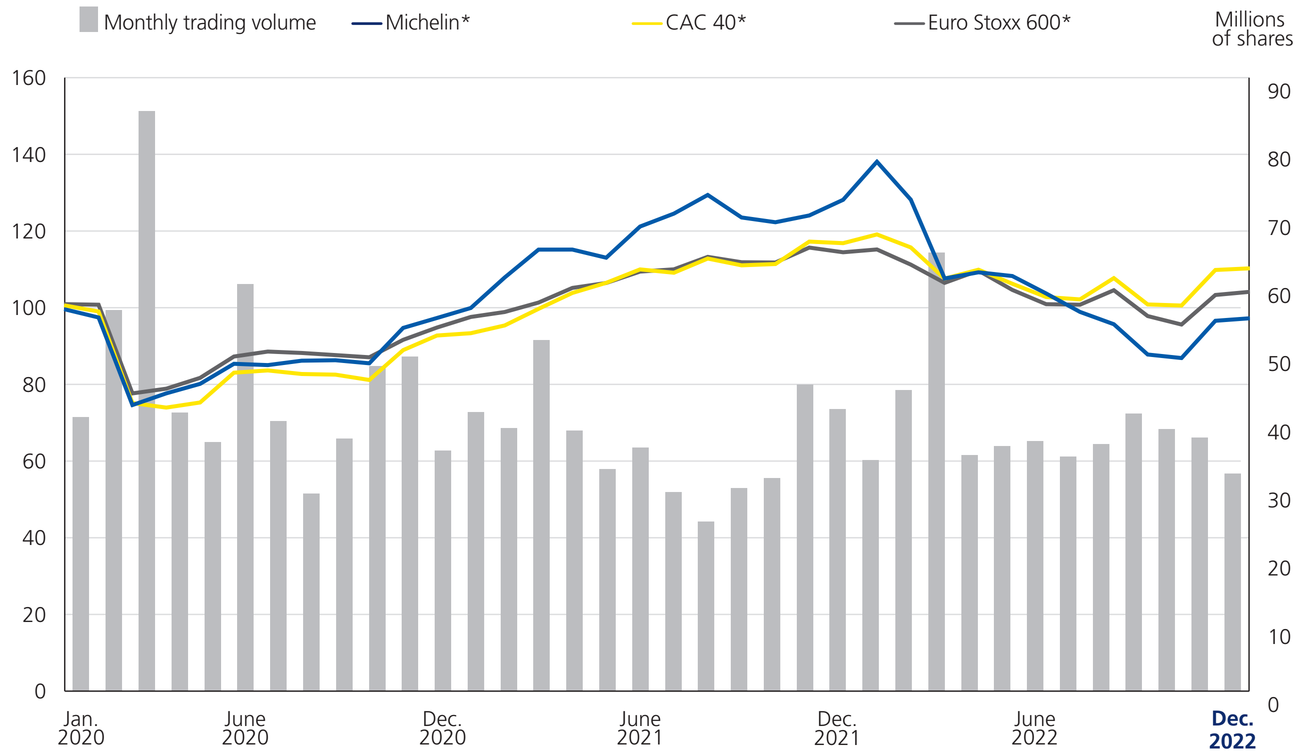
Michelin is also included in the main Socially Responsible Investing (SRI) indices:

- Ethibel Excellence Europe and Global, Euronext VigeoEiris France 20, Europe 120, Eurozone 120, World 120 and FTSE4Good

MICHELIN SHARE PERFORMANCE AND TRADING VOLUMES

According to statistical data collected by Euronext Paris.

Historical trading volume data have been restated to reflect the four-for-one stock split on June 16, 2022.



* *Standardized monthly averages (base 100 = January 1, 2020).*

1.8.2 SHARE DATA

According to statistical data collected by Euronext Paris.

Only the 2021 share data have been restated ("2021 restated") to reflect the four-for-one stock split on June 16, 2022.

Share price *(in €)*	**2022**	**2021 (restated)**	**2021 (reported)**	**2020**	**2019**	**2018**
Session high	38.93	36.50	146.00	112.80	119.50	130.85
Session low	21.99	25.83	103.30	68.00	83.74	82.68
High/low ratio	1.77	1.41	1.41	1.66	1.43	1.58
Closing price, end of period	25.99	36.04	144.15	104.95	109.10	86.70
Average closing price over the period	28.53	32.44	129.75	95.49	104.36	109.40
Change in the Michelin share price over the period	-27.89%	+37.35%	+37.35%	-3.80%	+25.84%	-27.48%
Change in the CAC 40 index over the period	*-9.50%*	*+28.85%*	*+28.85%*	*-7.14%*	*+26.37%*	*-10.95%*
Change in the Stoxx Europe 600 index over the period	*-12.90%*	*+22.25%*	*+22.25%*	*-4.04%*	-	-
Market capitalization *(at end of the period, in € billions)*	**18.56**	**25.74**	**25.74**	**18.72**	**19.49**	**15.59**
Average daily trading volume over the period[(1)]	1,844,574	1,743,820	435,955	548,883	577,545	649,347
Average number of shares outstanding	713,400,033	713,512,772	178,378,193	178,497,159	179,669,608	179,384,513
Volume of shares traded over the period	475,900,118	449,905,428	112,476,357	141,062,953	147,273,882	165,583,378

(1) Volumes traded on the Euronext platform.

1.8.3 PER-SHARE DATA

(in € per share, except ratios)	2022	2021 (restated)	2021 (reported)	2020	2019	2018
Net asset value per share	24.0	20.9	83.9	70.8	74.1	67.8
Basic earnings per share	2.81	2.58	10.31	3.52	9.69	9.30
Diluted earnings per share(1)	2.79	2.56	10.24	3.51	9.66	9.25
Price-earnings ratio	**9.3**	**14.0**	**14.0**	**29.8**	**11.3**	**9.3**
Dividend per share(2)	1.25	1.125	4.50	2.30	2.00	3.70
Payout ratio	44%	44%	44%	65%	21%	40%
Yield(3)	4.8%	3.1%	3.1%	2.2%	1.8%	4.3%

(1) Earnings per share adjusted for the impact on net income and on average shares outstanding of the exercise of outstanding dilutive instruments.
(2) Subject to approval by the Annual Shareholders Meeting on May 12, 2023.
(3) Dividend/share price at December 31.

1.8.4 CAPITAL AND OWNERSHIP STRUCTURE

At December 31, 2022, Michelin's share capital amounted to €357,058,707. 2020 and 2021 data for shares and voting rights outstanding have been restated to reflect the four-for-one stock split on June 16, 2022.

	At December 31, 2022			At December 31, 2021			At December 31, 2020		
	Number of shareholders	Shares outstanding	Voting rights outstanding	Number of shareholders	Shares outstanding	Voting rights outstanding	Number of shareholders	Shares outstanding	Voting rights outstanding
French institutional investors	4,509	22.8%	25.7%	4,123	23.6%	27.3%	3,938	27.1%	29.3%
Non-resident institutional investors		64.7%	59.7%		65.5%	59.2%		61.8%	57.1%
Individual shareholders	156,694	10.3%	12.1%	139,099	9.2%	11.5%	136,935	9.1%	11.4%
Employee share ownership plan	77,557	2.2%	2.5%	62,118	1.7%	2.0%	69,378	2.0%	2.3%
TOTAL	**238,760**	**714,117,414 SHARES(1)**	**978,544,459 VOTING RIGHTS**	**205,340**	**714,121,800 SHARES**	**952,588,184 VOTING RIGHTS**	**210,251**	**713,360,344 SHARES**	**974,338,392 VOTING RIGHTS**

(1) All fully paid up.

Shares held in the same name for at least four years carry double voting rights.

As of December 31, 2022, theoretical voting rights outstanding were equal to exercisable voting rights outstanding, and to the company's knowledge, no material portion of its issued capital has been pledged.

1.9 HIGHLIGHTS

January 7, 2022 – [With tires] – Michelin launches the new MICHELIN Road 6/Road 6 GT motorcycle tire. Leveraging the latest technologies developed by Michelin's R&D, the new tire differentiates in both wet grip and tire life improvement.

January 13, 2022 – [Beyond tires] – Michelin is continuing to develop WISAMO, the prototype wing sail system designed to help decarbonize maritime shipping. The innovative solution will be fitted on a Compagnie Maritime Nantaise – MN ro-ro container ship, which in late 2022 will begin operating two weekly rotations between Spain and the United Kingdom with a WISAMO wing sail.

January 28, 2022 – [With tires] – Michelin introduces two new summer tires, the MICHELIN Pilot Sport 5 and the MICHELIN Primacy 4+. With their long-lasting performance, they can be used for more kilometers, thereby helping to reduce mobility's environmental impact.

February 3, 2022 – [With tires] – Michelin launches the new MICHELIN City Extra commuter tire, with fitments available for scooters, step-throughs and small motorcycles. By offering a larger range of sizes, Michelin aims to broaden its global market coverage.

February 22, 2022 – [Beyond tires] – Michelin, Air France's exclusive tire supplier for the next ten years, has been selected, via its Michelin Editions subsidiary, to produce travel-related content for the airline's new "EnVols" media platform.

February 23, 2022 – [With tires] – Michelin redesigns its MICHELIN EVOBIB tire to optimize longevity, reduce soil compaction and improve fuel economy. With this new addition, Michelin now has a complete range of solutions for powerful tractors.

March 2022 – [Beyond tires] – Michelin is participating with French National Railways (SNCF), Milla Group and the Railenium Technology Research Institute in a project to develop a fully electric shuttle. Known as Flexy, the hybrid concept will be able to run on roads and rails, with the goal of revitalizing smaller transit lines in France.

March 7, 2022 – [With tires] – Michelin is chosen by Ferrari as an official tire supplier for its new 296 GTB. The new fittings are the product of Michelin's innovation capabilities and co-design work by Michelin and Ferrari teams.

March 10, 2022 – [With tires] – Michelin introduces its new MICHELIN STARCROSS 6 tire, the first MICHELIN motocross tire to use MICHELIN Silica Technology for superior long-lasting performance.

March 15, 2022 – [Group] – The Michelin Group suspends its industrial operations in Russia as well as its exports to the country. Michelin is dedicated to helping address the humanitarian needs of the people impacted by the conflict, both in Ukraine and abroad. Through the Michelin Corporate Foundation and its facilities in Central Europe, the Group has donated funding to support local humanitarian organizations, as well as initiatives undertaken by the Red Cross and the Red Crescent.

March 21, 2022 – [With tires] – At a time when soft mobility is becoming increasingly popular with consumers, Michelin is launching the new MICHELIN Power Cup premium road bicycle tire range, designed for racers and optimized for highly demanding cyclists.

March 22, 2022 – [Beyond tires] – Michelin presents the 2022 restaurant selection of the MICHELIN Guide France and, demonstrating its strategic focus on the "All Sustainable" commitment, celebrates the environmentally responsible engagement of 87 chefs by awarding them a Green Star.

April 12, 2022 – [Beyond tires] – The California Energy Commission (CEC) has selected Symbio, Faurecia and Michelin, along with other industry partners, to develop and demonstrate a hydrogen-fueled, regional-haul Class 8 truck, as leading contributors to a state-supported, zero-emission hydrogen mobility project.

April 29, 2022 – [With tires] – Michelin launches the new all-season MICHELIN CrossClimate2 SUV tire. Delivering outstanding performance up to the legal wear limit, the new tire is a further demonstration of the Group's "All-Sustainable" commitment.

May 13, 2022 – [Group] – Nearly 800 people attend the Annual Meeting of Michelin shareholders, held in Clermont-Ferrand, France under the chairmanship of Florent Menegaux, Managing Chairman.

May 24, 2022 – [Beyond tires] – Fenner Conveyors acquires Conveyor Products & Solutions, a global leader in innovative design, engineering and Australian-based manufacturing of high-quality conveyor rollers, idlers and pulleys.

May 25, 2022 – [Group] – Michelin will support UNICEF in its road safety programs for children in Southeast Asia and China.

June 3, 2022 – [With tires] – Michelin unveils the MICHELIN Pilot Sport CUP2 R tire, custom-made to fit the new Mercedes-AMG ONE hypercar.

June 7, 2022 – [Beyond tires] – Symbio, the Group's hydrogen power joint venture with Faurecia, and Schaeffler Group agree to form Innoplate, a joint venture that will boost production of bipolar plates (BPP), a strategic component in fuel cells.

June 7, 2022 – [Group] – The cornerstone is officially laid for the Cleantech Innovation Park, a project to revitalize the Bamberg facility in Bavaria, Germany.

June 8, 2022 – [Group] – Michelin breaks ground on the future Parc Cataroux in Clermont-Ferrand. Scheduled for completion in late 2026, the highly ambitious project involves transforming spaces in the century-old Cataroux facility, the emblem of Michelin's history and culture of innovation.

June 13, 2022 – [With tires] – At the 24 Hours of Le Mans, Michelin unveils a tire containing 53% sustainable materials, demonstrating its full potential on the Mission H24 hydrogen fuel-cell prototype and the new fully electric Porsche 718 Cayman GT4 ePerformance.

June 16, 2022 – [Group] – Michelin carries out a four-for-one stock split The four-for-one split makes the stock more accessible to retail investors and employees, thereby supporting the Group's commitment to effectively sharing its created value.

June 20, 2022 – [Group] – The Michelin Group, which previously owned 49% of Royal Lestari Utama (RLU), has purchased the remaining 51% of the joint venture created with Barito Pacific Group. In this way, Michelin has reasserted its objectives and its commitment to producing sustainable natural rubber in Indonesia and to improving the living conditions of local communities.

June 21, 2022 – [Beyond tires] – Michelin unveils the first curated selection in the MICHELIN Guide Dubai, after presenting three other first-time selections for Florida, Estonia and Nara Prefecture in Japan.

June 23, 2022 – [Beyond tires] – Michelin launches AirProne, a line of air cushions designed for the treatment of intensive care patients, an innovative technology jointly developed with the Amiens University Hospital and trialed in nine French hospitals.

June 28, 2022 – [Group] – Michelin announces its intention to transfer all its Russian activities to local management by the end of 2022 and is working to provide the most favorable framework possible for its employees. Completion of the project would lead to the removal of the related assets from the Group's scope of consolidation, but would not have any impact on the Group's financial guidance.

June 28, 2022 – [Around tires] – Group subsidiary Watèa is awarded the 2022 Clean Transport Sustainable Industry Award by French magazine Usine Nouvelle, in recognition of its comprehensive electric mobility solution for business fleets.

June 30, 2022 – [Group] – Michelin is recognized as a Clarivate™ Top 100 Global Innovator 2022. With a budget of €682 million in 2021 and a key role in the all-sustainable "Michelin in Motion" strategy, innovation is a core focus of every aspect of the Group's business.

June 30, 2022 – [Group] – Michelin announces its renewed support for the United Nations Road Safety Fund (UNRSF), to help meet the Global Plan's goal of reducing the number of road traffic deaths and injuries by at least 50% by 2030.

July 5, 2022 – [Beyond tires] – Launch of the Michelin-coordinated WhiteCycle project to encourage the recycling of plastic waste.

July 5, 2022 – [Group] – Michelin receives the Value Sharing Grand Prize at the Annual Meeting and Gender Equality Awards ceremony organized by the Responsible Capitalism Institute (ICR).

July 11, 2022 – [Around tires] – Michelin acquires RoadBotics, a US-based start-up specialized in road infrastructure computer vision. The acquisition offers a further illustration of Michelin's ambitions around tires, in particular in the field of mobility intelligence.

July 13, 2022 – [Beyond tires] – Symbio, the Group's hydrogen power joint venture with Faurecia, celebrates the rapid progress being made on the construction of its Gigafactory in Saint-Fons, near Lyon. Mass production is scheduled to start in mid-2023 with an initial capacity of 15,000 fuel cell systems, followed by gradual ramp-up to 50,000 systems a year. In particular, Symbio will supply fuel cell systems for Stellantis light commercial vehicles.

July 15, 2022 – [Beyond tires] – Symbio, the Group's hydrogen power joint venture with Faurecia, is one of the companies involved in the European Commission's "IPCEI Hy2Tech" program, which will provide up to €5.4 billion in state aid support from 15 member states to accelerate the development of a European hydrogen value chain.

August/October 2022 – [Beyond tires] – The MICHELIN Guide is enhanced with new curated selections making their debut in Tainan and Kaohsiung (Taiwan), Toronto (Canada) and Istanbul (Turkey).

September 12, 2022 – [Group] – Capital reduction: following the cancellation of 4,326,536 treasury shares, representing 0.61% of total shares outstanding, the Company's issued share capital consists of 709,795,312 shares. The cancellation was in line with the Group's commitment to offsetting dilution from new shares issued or vesting under employee share ownership plans and performance share plans.

September 14 to 29, 2022 – [Group] – Strong take-up for the new "BIB'Action 2022" employee share ownership plan. Open to more than 120,000 employees in 47 countries, the new plan, which offers more attractive terms, illustrates Michelin's determination to have its employees collectively rank among its main shareholders. With half of all employees participating in the plan, including 30% who became new shareholders, take-up was high, demonstrating the confidence and commitment of everyone in the corporate community.

October 5, 2022 – [With tires] – In a world first, Michelin unveils two new tires, one for cars and the other for buses, approved for road use and containing 45% and 58% sustainable materials respectively. The Group has once again demonstrated its technological leadership in materials, and intends to bring the innovation to market by 2025.

October 5, 2022 – [Group] – Michelin presents the changes in tire markets and the transformation of its facilities at the 2022 Media Day. Michelin also reviewed both the major transformations underway in its production facilities to respond to emerging environmental, technological and human challenges and its core objectives for the years ahead: reaching net zero carbon emissions by 2050 while striving to cut these emissions in half between 2010 and 2030; catalyzing business performance with digitalization, leveraging artificial intelligence, and increasing employee empowerment.

October 6, 2022 – [Beyond tires] – Symbio, the Group's hydrogen joint-venture with Faurecia, announces the start-up of its Innoplate joint-venture with Schaeffler, which will produce fuel cell bipolar plates to support global mobility and energy solutions. Located in Haguenau, in France's Alsace region, the Innoplate plant will begin production in early 2024.

October 6, 2022 – [Beyond tires] – Symbio, the Group's hydrogen joint-venture with Faurecia, unveils the global scale of its game-changing HyMotive project, which is accelerating its roadmap towards leadership in the global fuel cell market. HyMotive has been selected as a Hy2Tech hydrogen IPCEI (Important Project of Common European Interest), with the support of the France Relance/France 2030 program. It will enable Symbio to fast-forward its process engineering and disruptive innovation capabilities, while increasing total production capacity in France to 100,000 systems a year by 2028 and creating 1,000 jobs. The Saint-Fons gigafactory will begin production in late 2023.

October 27, 2022 – [Beyond tires] – AirCaptif, a Michelin start-up specializing in inflatable structures, unveils a revolutionary device, developed in partnership with Dassault Aviation, to facilitate the certification trials for the Falcon 6x aircraft range. The company announces that the new technology will be produced at Michelin's facility in Bourges Saint-Doulchard. Starting in 2023, it plans to double its output from the plant and hire new talent.

November 2022 – [People] – The Michelin Group formalizes its human rights policy, with a particular concern for respecting every individual and preserving his or her well-being, in accordance with the Group's founding values. This policy is aligned both with the duty of care that Michelin owes to all its stakeholders and with its commitment to complying with international law.

November 2022 – [People] – The Group formalizes the Michelin One Care Program, which embeds all the Group's advances in providing a universal social protection floor, for a deployment within January 1st 2025. The program incarnates the Company's dedication to supporting all its employees around the world at important moments in their lives with a package of fundamental benefits

November 2, 2022 – [Beyond tires] – Solesis, the Group's medical joint venture with Altaris, announces the acquisition of Polyzen, a leader in polymer-based film and coating technologies in the medical device and biopharmaceutical industries. This acquisition will expand Solesis' design and production capabilities and broaden its service offerings to customers.

November 16, 2022 – [Planet] – At the Smithers Recovered Carbon Black Conference, Michelin and Bridgestone present the results of their common work on rCB in the tire industry, including an initial version of proposed rCB grade definitions and specifications, defined with the rCB community, and a set of draft worldwide standards. Using rCB in tires will play a critical role in meeting the objective of supplying products made entirely from sustainable materials by 2050

November 16, 2022 – [Beyond Tires] – In 2022, the Robert Parker Wine Advocate experts select a total of 16 inspiring wineries for their sustainable approach to winemaking, joining the 24 already recognized in the inaugural 2021 list.

December 2022 – [Planet] – As part of the Group's ambition to achieve net zero emissions in all its direct and indirect activities by 2050, SBTi validates that commitments announced in 2021 are aligned with the "well below 2°C" trajectory. Beyond this step, Michelin is continuing to seek levers to set a course compatible with keeping global warming below 1.5°C.

December 23, 2022 – [Group] – Michelin, Faurecia and Stellantis announce exclusive negotiations for Stellantis to acquire a substantial stake in Symbio, a leader in zero-emission hydrogen mobility, to become a significant partner alongside existing shareholders Faurecia and Michelin.

January 10, 2023 – [With tires] – Michelin UPTIS, the prototype puncture-proof tire, will be fitted on nearly 50 DHL delivery vehicles in Singapore by end-2023. Based on internal research, Michelin projects that UPTIS airless technology could prevent the premature scrapping of up to 200 million tires a year worldwide. Airless technology is the key to Michelin's vision of a fully sustainable tire by 2050.

February 2, 2023 – [Beyond tires] – CDI Energy Products, which is part of the High-Tech Materials Division and an industry leader in the custom manufacturing of high-performance polymer products, announced the acquisition of EGC Enterprises, Inc. a leading manufacturer of graphite-based sealing products located in Ohio and North Carolina. The acquisition reflects the deployment of the Group's "Beyond tires" growth strategy.

1.10 FIVE-YEAR SUMMARY OF CONSOLIDATED KEY FIGURES AND RATIOS

(in € millions)	2022	2021	2020	2019	2018
Sales	28,590	23,795	20,469	24,135	22,028
% change	+20.2%	+16.3%	-15.2%	+9.6%	+0.3%
Total employee benefit costs	6,950	6,445	5,996	6,365	6,038
As a % of sales	24.3%	27.1%	29.3%	26.4%	27.4%
Number of full-time equivalent employees at period-end	124,900	118,400	117,500	121,300	111,100
Research and development expenses	698	682	646	687	648
As a % of sales	2.4%	2.9%	3.2%	2.8%	2.9%
Segment EBITDA(1)	**5,262**	**4,700**	**3,631**	**4,763**	**4,119**
Segment operating income	3,396	2,966	1,878	3,009	2,775
Segment operating margin	11.9%	12.5%	9.2%	12.5%	12.6%
Operating income	3,021	2,777	1,403	2,691	2,550
Operating margin	10.6%	11.7%	6.9%	11.1%	11.6%
Cost of net debt	239	192	242	330	200
Other financial income and expenses	(22)	(4)	(14)	(5)	16
Income before taxes	2,656	2,471	979	2,236	2,230
Income tax	647	626	354	506	570
Effective tax rate	24.4%	25.3%	36.2%	22.6%	25.6%
Net income	2,009	1,845	625	1,730	1,660
As a % of sales	7.0%	7.8%	3.1%	7.2%	7.5%
Dividends	803	410	357	666	637
Net cash from operating activities	**1,931**	**2,906**	**3,366**	**3,321**	**2,831**
as a % of sales	6.8%	12.2%	16.4%	13.8%	12.9%
Gross purchases of intangible assets and PP&E	2,141	1,705	1,221	1,801	1,669
As a % of sales	7.5%	7.2%	6.0%	7.5%	7.6%
Net debt(2)	4,320	2,789	3,531	5,184	4,056
Total equity	17,116	14,971	12,631	13,229	12,181
Gearing(2)	25.2%	18.6%	28.0%	39.2%	33.0%
Net debt(2)/segment EBITDA(1)	0.82	0.59	0.97	1.09	0.98
Segment operating income/net interest expense(3)	11.5	13.7	7.9	10.1	13.3
Free cash flow(4)	(180)	1,357	2,004	1,142	-1,985
ROE(5)	12.5%	13.4%	4.8%	13.6%	14.2%
Operating ROCE(6)	10.8%	10.3%	6.0%	10.0%	-
PER-SHARE DATA* *(in €)*					
Net assets per share(7)	24.0	20.9	17.7	18.5	17.0
Basic earnings per share	2.81	2.58	0.88	2.42	2.33
Diluted earnings per share	2.79	2.56	3.51	9.66	9.25
Price-earnings ratio(8)	9.3	14.0	29.8	11.3	9.3
Dividend for the year(9)	1.25	1.125	0.575	0.50	0.925
Payout ratio(10)	44%	44%	65%	21%	40%
Yield(11)	4.8%	3.1%	2.2%	1.8%	4.3%

(1) As defined in note 3.7.2 to the consolidated financial statements.

(2) Net debt: financial liabilities less cash and cash equivalents (excluding cash flows from cash management assets and borrowing collaterals) plus/less derivative assets, as defined in note 26 to the consolidated financial statements.

(3) Net interest expense: interest financing expenses - interest income from cash and equivalents.

(4) Free cash flow: net cash from operating activities less net cash used in investing activities (adjusted for net cash flows relating to cash management financial assets and borrowing collaterals), as defined in section 1.5.3.

(5) ROE: as from 2022, return on equity is defined as net income divided by average equity for the year (calculated as the average of year-end equity and prior year-end equity) instead of net income divided by equity at December 31. The 2018 to 2021 figures have been restated for comparison purposes.

(6) Operating ROCE: based on the method in use since 2021 as explained in section 1.6. Full-year 2019 and 2020 ROCE has been remeasured using this method.

(7) Net assets per share: net assets/number of shares outstanding at the end of the period.

(8) P/E: Share price at the end of the period/basic earnings per share.

(9) Subject to approval by the Annual Meeting of May 12, 2023.

(10) Payout ratio: Dividend/net income excluding non-recurring items (adjusted with respect to the nominal tax rate).

(11) Yield: dividend per share/share price at December 31.

** The 2018 to 2021 per-share data have been restated to reflect the four-for-one stock split on June 16, 2022.*

CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2022

2. CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2022

CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2022

DETAILED SUMMARY OF THE NOTES TO THE FINANCIAL STATEMENTS

CONSOLIDATED INCOME STATEMENT

(in € millions, except per-share data)	Note	2022	2021
Sales	5	28,590	23,795
Cost of sales		(21,052)	(16,810)
Gross income		**7,538**	**6,985**
Sales and marketing expenses		(1,174)	(1,133)
Research and development expenses		(698)	(682)
General and administrative expenses		(2,244)	(2,137)
Segment other income and expenses	8	(26)	(67)
Segment operating income	**5**	**3,396**	**2,966**
Other operating income and expenses	9	(375)	(189)
Operating income		**3,021**	**2,777**
Cost of net debt	10	(239)	(192)
Other financial income and expenses	10	(22)	(4)
Net interest on employee benefit obligations	27.1	(45)	(41)
Share of profit/(loss) from equity-accounted companies	17	(59)	(69)
Income before taxes		**2,656**	**2,471**
Income tax	11	(647)	(626)
NET INCOME		**2,009**	**1,845**
Attributable to the shareholders of the Company		2,001	1,844
Attributable to the non-controlling interests		8	1
EARNINGS PER SHARE (IN €)	**12**		
Basic		2.81	2.58
Diluted		2.79	2.56

(1) Data for 2021 earnings per share have been restated to reflect the four-for-one stock split on June 16, 2022.

Notes 1 to 37 are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(in € millions)	Note	2022	2021
Net income		**2,009**	**1,845**
Post-employment benefits	27.1	672	351
Tax effect – Post-employment benefits	18	(132)	(83)
Equity instruments at fair value through OCI – changes in fair value	15.1	57	31
Tax effect – equity instruments at fair value through OCI	18	(10)	(7)
Other		4	-
Other comprehensive income that will not be reclassified to the income statement		***591***	***292***
Cash flow hedges – changes in fair value		(10)	(10)
Currency translation differences		386	616
Other		(1)	(9)
Other comprehensive income that may be reclassified to the income statement		***375***	***597***
Other comprehensive income		**966**	**889**
TOTAL COMPREHENSIVE INCOME		**2,975**	**2,734**
Attributable to the shareholders of the Company		2,968	2,734
Attributable to the non-controlling interests		7	-

Notes 1 to 37 are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(in € millions)	Note	December 31, 2022	December 31, 2021
Goodwill	13	2,430	2,286
Intangible assets	13	1,803	1,811
Property, plant and equipment (PP&E)	14.1	12,136	11,231
Right-of-use assets	14.2	1,010	1,034
Non-current financial assets and other non-current assets	15	1,161	1,404
Investments in equity-accounted companies	17	1,102	1,103
Deferred tax assets	18	630	751
Non-current assets		**20,272**	**19,620**
Inventories(1)	19	6,318	5,115
Trade receivables	20	4,205	3,576
Current financial assets	21	652	713
Other current assets	22	1,315	1,038
Cash and cash equivalents	23	2,584	4,482
Current assets		**15,074**	**14,924**
TOTAL ASSETS		**35,346**	**34,544**
Share capital	24	357	357
Share premiums	24	2,702	2,746
Reserves	25	14,051	11,871
Non-controlling interests		6	(3)
Total equity		**17,116**	**14,971**
Non-current financial liabilities	26	4,705	5,360
Non-current lease liabilities	26	690	731
Provisions for employee benefit obligations	27.1	2,561	3,362
Provisions and other non-current liabilities	29	695	759
Deferred tax liabilities	18	541	503
Non-current liabilities		**9,192**	**10,715**
Current financial liabilities	26	1,826	1,682
Current lease liabilities	26	233	229
Trade payables		3,416	3,174
Trade payables under reverse factoring agreements	3.26	595	613
Provisions and other current liabilities(1)	30	2,968	3,160
Current liabilities		**9,038**	**8,858**
TOTAL EQUITY AND LIABILITIES		**35,346**	**34,544**

(1) The figures at December 31, 2021 have been restated for comparison purposes (note 2.7).

Notes 1 to 37 are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(in € millions)	Share capital *(note 24)*	Share premiums *(note 24)*	Reserves *(note 25)*	Non-controlling interests	Total equity
At January 1, 2021	**357**	**2,746**	**9,530**	**(2)**	**12,631**
Net income/(loss)	-	-	1,844	1	1,845
Other comprehensive income/(loss)	-	-	890	(1)	889
Total comprehensive income/(loss)	**-**	**-**	**2,734**	**-**	**2,734**
Issuance of shares	-	-	-	-	-
Share buybacks	-	-	(1)	-	(1)
Cancellation of shares	-	-	1	-	1
Dividends and other appropriations	-	-	(414)	(1)	(415)
Share-based payments – current service cost	-	-	21	-	21
Sales of treasury shares	-	-	-	-	-
Other	-	-	-	-	-
At December 31, 2021	**357**	**2,746**	**11,871**	**(3)**	**14,971**
Net income/(loss)	-	-	2,001	8	2,009
Other comprehensive income/(loss)	-	-	967	(1)	966
Total comprehensive income/(loss)	**-**	**-**	**2,968**	**7**	**2,975**
Issuance of shares	2	74	-	-	76
Share buybacks	-	-	(120)	-	(120)
Cancellation of shares	(2)	(118)	120	-	-
Dividends and other appropriations	-	-	(808)	(1)	(809)
Share-based payments – current service cost	-	-	20	-	20
Sales of treasury shares	-	-	-	-	-
Other	-	-	-	3	3
AT DECEMBER 31, 2022	**357**	**2,702**	**14,051**	**6**	**17,116**

Notes 1 to 37 are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

(in € millions)	Note	2022	2021
Net income		2,009	1,845
Adjustments			
• Cost of net debt	10	239	192
• Other financial income and expenses	10	22	4
• Net interest on employee benefit obligations	27.1	45	41
• Income tax	11	647	626
• Amortization and depreciation of intangible assets and PP&E	6	1,866	1,734
• Other operating income and expenses	9	375	189
• Share of profit from equity-accounted companies	17	59	69
Segment EBITDA	**3.7.2**	**5,262**	**4,700**
Other operating income and expenses (cash) and changes in provisions	31	(234)	(201)
Interest and other financial income and expenses received and paid, net	31	(323)	(207)
Income tax paid	18.2	(697)	(562)
Change in working capital, net of impairment	31	(2,077)	(824)
Net cash from operating activities		**1,931**	**2,906**
Purchases of intangible assets and PP&E	31	(2,041)	(1,479)
Proceeds from sales of intangible assets and PP&E		33	38
Equity investments in consolidated companies, net of cash acquired		(124)	(82)
Disposals of equity investments in consolidated companies, net of cash sold		65	(3)
Purchases of equity instruments at fair value		(18)	(25)
Disposals of equity instruments at fair value		-	3
Cash flows relating to other financial assets	31	140	(203)
Net cash from/(used in) investing activities		**(1,945)**	**(1,751)**
Proceeds from issuance of shares	24	76	-
Dividends paid to the shareholders of the Company	24	(803)	(410)
Cash flows relating to financial liabilities	31	(951)	(1,043)
Share buybacks	24	(120)	-
Other		(62)	20
Net cash from/(used in) financing activities		**(1,860)**	**(1,433)**
Effect of changes in exchange rates		**(24)**	**13**
INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		**(1,898)**	**(265)**
Cash and cash equivalents at January 1		4,482	4,747
Cash and cash equivalents at December 31	23	2,584	4,482

Notes 1 to 37 are an integral part of the consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 GENERAL INFORMATION

Compagnie Générale des Établissements Michelin (CGEM or the "Company") and its subsidiaries (together "the Group") design, manufacture and market tires throughout the world. The Group also provides its customers with tire- and vehicle-related services and solutions, mobility experiences and expertise in high-tech materials.

The Company is a partnership limited by shares (*société en commandite par actions*) incorporated in Clermont-Ferrand (France).

The Company is listed on Euronext Paris (Eurolist Compartment A).

After a review by the Supervisory Board, these consolidated financial statements were authorized for issue by the Managing Chairman on February 10, 2023.

Except as otherwise stated, all amounts are presented in millions of euros (in € millions).

NOTE 2 BASIS OF PREPARATION

2.1 Statement of compliance

The consolidated financial statements:

- have been prepared in accordance with the International Financial Reporting Standards (IFRS) adopted by the European Union as of the reporting date and with a mandatory application to the period then ended;
- also comply with the International Financial Reporting Standards (IFRS) published by the International Accounting Standards Board (IASB); and
- have been prepared using the historical cost convention, with the exception of unconsolidated equity investments and financial assets and liabilities (including derivatives), which are measured at fair value through profit and loss or other comprehensive income.

2.2 Accounting policies

The accounting policies applied in the preparation of the Group's consolidated financial statements are set out in note 3 "Accounting policies". Aside from the exceptions described in sections 2.3 and 2.7 below, these policies have been consistently applied to all the years presented.

2.3 New standards, amendments to existing standards and interpretations effective from January 1, 2022 in the European Union

The following amendments to IFRSs are effective from January 1, 2022; they have no material impact for the Group:

Amendment to IAS 16 – Property, Plant and Equipment – Proceeds Before Intended Use

This amendment prohibits a company from deducting from the cost of property, plant and equipment amounts received from selling items produced while the asset is being prepared for its intended use (for example, during the testing phase). Instead, the proceeds from selling such items must be recognized in profit or loss.

Amendment to IAS 37 – Provisions, Contingent Liabilities and Contingent Assets – Onerous Contracts, Cost of Fulfilling a Contract

The amendment specifies the costs to be taken into account when assessing whether a contract will be loss-making.

Amendment to IFRS 3 – Business Combinations – Updated Reference to the Conceptual Framework

This amendment updates a reference in IFRS 3 to the latest Conceptual Framework without changing the accounting requirements for business combinations.

Annual Improvements to IFRSs – 2018-2020 Cycle

Minor amendments have been made to IFRS 9, IAS 41, IFRS 16 and IFRS 1.

2.4 New standards, amendments to existing standards and interpretations that are not yet effective

The following new IFRS standards, amendments and interpretations which are not applicable at December 31, 2022 are not expected to have a material impact on the consolidated financial statements at their application date:

Amendment to IAS 1 – Disclosure of Accounting Policies

This amendment requires entities to disclose their accounting policy information only if it is material. Information about accounting policies applied to non-material transactions and events is itself non-material and is not required to be disclosed. This amendment to IAS 1 was adopted by the European Union on March 2, 2022 and will be effective for annual periods beginning on or after January 1, 2023.

Amendment to IAS 1 – Presentation of Financial Statements – Classification of Liabilities as Current or Non-current

The amendment published in January 2020 clarifies the principles to be applied to classify liabilities as current or non-current. In September 2021, the IASB proposed a new amendment to IAS 1 to clarify the classification of debt with covenants. These amendments would be effective at the earliest for annual periods beginning on or after January 1, 2024.

Amendment to IAS 8 – Definition of Accounting Estimates

This amendment is designed to help entities distinguish between a change in accounting policies and a change in accounting estimates by introducing a new definition of accounting estimates. Accounting estimates are monetary amounts in financial statements that are subject to measurement uncertainty. The amendment has been adopted for use in the European Union and will be applicable prospectively for annual periods beginning on or after January 1, 2023.

Amendment to IAS 12 – Deferred Tax related to Assets and Liabilities arising from a Single Transaction

These amendments narrow the scope of the initial recognition exemption by excluding transactions for which companies recognize both an asset and a liability, such as leases and decommissioning obligations. In future, companies will be required to recognize deferred tax on these transactions.

The amendments will be effective for annual periods beginning on or after January 1, 2023 and will apply to qualifying transactions occurring as from the beginning of the earliest comparative period presented. They will have no material impact on the Group's consolidated financial statements.

IFRS 17 – Insurance Contracts – Recognition, Measurement and Presentation

The new standard, including the amendments issued in June 2020, will be effective for accounting periods beginning on or after January 1, 2023. It was adopted by the European Union on November 19, 2021 and will not have a material impact on the Group’s consolidated financial statements.

There are no other new standards, updates or interpretations published but not yet effective whose impact could be material for the Group.

2.5 Operations in Russia

The Group's operations in Russia have been suspended for almost a year.

The Group is exploring different divestment scenarios, including sale to a third party. At the reporting date, the Russian subsidiaries were still controlled by the Group.

The impairment loss recognized in 2022 amounted to €139 million; it is reported in the income statement under "Other operating income and expenses". It corresponds to the portion of the Russian net assets that the Group believes to be unrecoverable.

The residual balance sheet exposure consists mainly of the translation adjustment in the amount of €24 million, which will be recognized in the income statement on the date when control is lost.

The functional currency of Russian operations is the ruble (RUB). The valuation is based on a closing EUR/RUB exchange rate of 76.98.

2.6 Climate risk

The 2022 financial statements take into account the consequences of the uncertain climate outlook and the objectives of the Group's climate strategy for 2030.

Concerning the energy transition, the Group has decided stop using coal as an energy source by 2030. This decision has not had a material impact on the values attributed to the underlying plant and equipment. The number of sites still using coal is limited and the assets concerned are largely depreciated. The cost of replacing these assets is estimated at around €60 million (2021: €38 million).

In response to the current geopolitical situation and spiraling energy costs, the Group has stepped up implementation of the electrification program launched in 2020 concerning the presses used to vulcanize tires. The sums committed under the program for the next five years are estimated at around €170 million. Beyond that, the speed of press electrification will depend on its observed impact on energy performance. This capital expenditure has been taken into account in the cash flow forecasts used for asset impairment tests.

The long-term consequences of climate risks on future cash flows are difficult to predict. They could include, for example, the interruption of operations at plants exposed to natural disaster risks or price increases designed to pass on green taxes decided by governments to encourage the energy transition. In 2022, the Group launched an analysis of its exposure with the aim of proposing possible adaptation plans for its sites.

The long-term consequences of climate risk are also taken into account in the Group's risk mapping analyses. A sensitivity test was performed on the CGUs or groups of CGUs carrying goodwill (note 3.1 "Goodwill").

The Group is subject to the European Union's rules on the management of CO_2 emission allowances. The Group purchases allowances on the market based on its forecast needs for the next two to three years. The accounting treatment of emission allowances is described in note 3.15.1 and the balance sheet amounts at December 31, 2022 are disclosed in note 13.2.4.

The interest rate on the Group's €2,500 million syndicated line of credit (€2,500 million in 2021, see note 33.2.1) depends on its performance in relation to its environmental objectives (CO_2 emissions and an industrial environmental performance indicator).

In a commitment to sustainably reduce the Group's carbon footprint, strategies have been deployed over the past several years to increase the use of renewable energies. These biomass, solar power and wind power projects often have long maturity cycles. Today, 21 Group facilities are equipped with renewable energy installations. In all, 23% of the energy used by the Group in 2022 was from renewable sources (2021: 18%).

2.7 Restatement of comparative information

As mentioned in note 3.8, the Group manages the tire fleets of customers operating commercial vehicle fleets. In order to better reflect the terms and economic reality of contracts where the tires are not purchased at contract inception, the Group has decided to no longer recognize inventory and a corresponding operating liability to the customer for tires mounted on vehicles under these contracts. Comparative information at December 31, 2021 has been restated for an amount of €157 million.

The change has no impact on the consolidated income statement and statement of cash flows for either 2022 or 2021.

2.8 Critical accounting estimates and judgments

The preparation of the consolidated financial statements in accordance with IFRS requires that management use assumptions and estimates to calculate the value of assets and liabilities at the date of the consolidated statement of financial position and the amount of income and expenses for the reporting period. Actual results could differ from those estimates.

The main sources of uncertainty relating to key assumptions and judgments concern impairment of non-financial assets, employee benefit obligations, income taxes, goodwill, intangible assets acquired in business combinations and the assets' estimated useful lives, the definition of the enforceable period of a lease and the effect on revenue recognition of deferred customer discounts.

2.8.1 Impairment of non-financial assets

The cash generating units' (CGU) future cash flows used to calculate value in use (note 3.17 "Impairment of non-financial assets") are derived mainly from forecasts set out in the Group's five-year business plan. The forecasts are prepared by the Business Departments and Business Lines based on the strategic objectives validated by the Managers. The process requires using critical estimates and judgments, especially to determine market trends, raw material costs and pricing policies. Consequently, actual cash flows may differ from the estimates used to calculate the CGUs' value in use (see in particular the comments in note 2.6 concerning the recognition of climate risk).

Quantitative information is provided in note 13.1 "Goodwill".

2.8.2 Employee benefit obligations

The Group uses defined contribution plans which generally require, on top of the portion financed by the Group, a contribution from each salaried employee, defined as a percentage of their compensation.

Some subsidiaries also recognize liabilities for pension plans, jubilees and other post-employment benefits linked to rights acquired by the employees through plans specific to these subsidiaries or resulting from certain legal obligations.

The valuation of these benefits is carried out annually with the assistance of independent actuaries. The actuarial method used is the projected unit credit method.

In accordance with this method, statistical information and various assumptions are used in calculating the expenses, liabilities and assets related to the benefit plans. Assumptions mainly include the discount rate, the inflation rate, the long-term salary increase rate and the expected rate of growth in future medical costs. Statistical information is mainly related to demographic assumptions such as mortality, employee turnover, disability and retirement age.

Assumptions and statistical information are determined based on internal guidelines, in consultation with the actuaries.

Discount rates are determined with the assistance of independent actuaries based on the same maturities as the liabilities.

The rate of salary increases is determined by each country based on a long-term salary policy and takes into consideration all of the relevant factors including market practices, as well as career development, promotion and seniority, among other inputs.

The inflation rates, calculated over standard durations, are determined using several methods:

- by using actuarial models based on target rates published by central banks, forecasts from Consensus Economics and inflation swap curves;
- by taking the spread between inflation-linked bonds and conventional securities. The rates are then adjusted with a spread which represents the liquidity and risk premium embedded in the inflation-linked bonds;
- based on historical averages.

The other assumptions (retirement age, employee turnover, health care cost trend, mortality and disability) reflect the demographic and economic situation of the countries and subsidiaries in which the plans are in force.

The actual data (such as inflation, mortality and real return on assets) may differ from the long-term actuarial assumptions used. The resulting difference is recognized as a gain or loss in other comprehensive income.

Quantitative information is provided in note 27 "Employee benefit obligations".

2.8.3 Income tax

Judgments and estimates are required to determine the amount of the deferred tax assets resulting from tax loss carryforwards or deductible temporary differences.

The expected reversal of tax losses is based on the forecast of future results validated by the local management and reviewed by the Group Tax and Accounting Departments. Analyses are also performed in order to ensure the consistency of the forecasts with the Group's strategic plans validated by management. Analyses to support the deferred tax positions are performed periodically, at a date as close as possible to the reporting date.

The period over which tax loss carryforwards are reversed is based on a reasonable time horizon, taking into account the specific circumstances of each Group company, such as:

- the origin of the historical tax losses (generally exceptional and non-recurring: restructuring, significant increases in production capacity, etc.);
- forecast future results;
- reorganization projects that will eliminate sources of losses;
- the time limit for recovering historical losses; and
- the maximum utilization rate of tax loss carryforwards in a given year.

Quantitative information is provided in notes 11 "Income tax" and 18 "Taxes".

The companies that make up the Group operate in different, and sometimes uncertain, legal and regulatory environments, including tax environments. They may be involved, in the normal course of business, in various types of litigation, disputes or other proceedings.

Each of the known disputes or ongoing proceedings in which the Group or one of the Group companies is involved was examined at the reporting date, where appropriate with the assistance of external consultants, and provisions have, if necessary, been booked to cover the estimated risks.

2.8.4 Goodwill, intangible assets acquired in business combinations and their estimated remaining useful life

As part of its acquisitions, the Group identifies, measures and recognizes intangible assets (trademarks and customer relationships, for example) and determines their residual useful lives. The difference between the fair value of assets acquired and liabilities assumed, on the one hand, and the consideration transferred, on the other, represents goodwill, which is allocated to the CGUs or to the groups of CGUs benefiting from the synergies expected from the business combination. In order to perform the purchase price allocation, the Group takes into account the various strategic and operational objectives underlying the acquisition and relies on the expertise of valuation firms.

The value of assets and liabilities recognized on business combinations may be impacted in the future if judgments, estimates and key assumptions made at the time of the acquisition, such as revenue growth rate, operating margin or discount rates, should differ from reality.

2.8.5 Enforceable period of a lease

When the Group enters into a lease, it determines the enforceable period by taking into account all the economic facts and circumstances, as well as the options to extend and terminate the lease. This information is used to determine the most economically relevant end date for the lease.

For certain categories of leased assets (mainly vehicles), the Group considers that there is no reasonably certain extension option. Consequently, the duration is selected to coincide with the initial term of the lease. For real estate leases, the Group defines the reasonable end date of the lease, based on the enforceable period, in line with the asset's expected period of use. Accordingly, for leases with a residual term of more than ten years, the first enforceable exit option is chosen unless specific information and economic circumstances lead the Group to define a longer period.

NOTE 3 ACCOUNTING POLICIES

3.1 Consolidation

The Group's consolidated financial statements include all subsidiaries, joint ventures and associates of Compagnie Générale des Établissements Michelin.

The Group treats transactions with non-controlling interests, as long as they do not result in a change of control over the entities in question (no loss nor gain of control), as equity transactions having no impact on comprehensive income. Expenses relating to these transactions are directly accounted for in equity. At the date the Group gains control of an entity, the carrying amount of previously held non-controlling interests, if any, is adjusted to fair value and the difference is recognized in the income statement. All other related items previously recognized in other comprehensive income are reclassified to the income statement. When the Group loses control over an entity but keeps some non-controlling interests in the entity, the transaction is analyzed as an exchange, i.e., the disposal of a controlling interest and the acquisition of a non-controlling interest.

Shareholdings in companies which are not subsidiaries, joint ventures or associates are not consolidated. They are accounted for as non-derivative financial assets (note 3.18 “Non-derivative financial assets”).

3.1.1 Subsidiaries

The Group controls an entity when it has:

- power over the investee;
- exposure, or rights, to variable returns from its involvement with the investee; and
- the ability to use its power over the investee to affect the amount of the investor's returns.

The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

Intercompany transactions and balances, as well as unrealized gains on transactions between Group companies are eliminated. Unrealized losses are also eliminated unless an impairment loss on the transferred asset arises on the transaction.

Group accounting policies are applied consistently by all subsidiaries.

3.1.2 Joint ventures and associates

Joint ventures are joint arrangements (arrangements over which the Group has joint control with one or more other parties) in which the Group has rights to the net assets. Joint control is defined as the contractually agreed sharing of control over an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

Associates are all entities over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control of those policies. Generally, associates are entities in which the Group has a shareholding representing between 20% and 50% of the voting rights.

Investments in joint ventures and associates are initially recognized at their acquisition cost and are subsequently accounted for using the equity method. The Group's investments in joint ventures and associates include goodwill identified at the acquisition date and are presented net of any accumulated impairment losses.

From the acquisition date to the date that significant influence ceases, the Group's share of its joint ventures' and associates' profits and losses is recognized in the income statement, and its share of movements in other comprehensive income is recognized in other comprehensive income. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment.

When the Group's share of losses in a joint venture or associate equals or exceeds its interest in the investee, the Group recognizes its share of the investee's negative net worth and, where appropriate, the carrying amount of any loans to the joint venture or associate is reduced by the amount of that negative net worth.

Unrealized gains on transactions between the Group and its joint ventures and associates are eliminated to the extent of the Group's interest in the investee. Unrealized losses are also eliminated unless an impairment loss on the transferred asset arises on the transaction.

The profit resulting from downstream transactions carried out with a joint venture or an associate is deducted from the Group's proportionate share in profit of equity-accounted company.

In the consolidated income statement, the line “Share of profit/(loss) from equity-accounted companies” also includes the remeasurement at fair value of investments previously accounted for by the equity method that are now fully consolidated.

3.2 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the Group's Management.

The Managing Chairman regularly examines segment operating income to assess segment performance. He has therefore been identified as the chief operating decision maker of the Group.

3.3 Foreign currency

3.3.1 Presentation and functional currency

The financial statements of the Group entities are measured using their functional currency, which is the currency of the primary economic environment in which they operate and corresponds for most of them to their local currency.

The consolidated financial statements are presented in euros (presentation currency), which is the Company's functional currency.

3.3.2 Transactions

Foreign currency transactions are translated into the functional currency using the exchange rate prevailing at the transaction date. Foreign exchange gains and losses resulting from the settlement of such transactions and from the revaluation at closing exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the income statement.

Exchange differences on unconsolidated equity investments are included in other comprehensive income until the investment is sold.

3.3.3 Translation

The financial statements of the Group entities whose functional currency is different from the Group's presentation currency are translated into euros as follows: assets and liabilities are translated at the closing rate at the date of the consolidated statement of financial position, income and expenses are translated at the average rate for the period (as it is considered a reasonable approximation to actual rates at the transaction date), and all resulting exchange differences are recognized in other comprehensive income.

Cash flows are also translated at the average rate for the period. When an entity is disposed of, the translation differences accumulated in other comprehensive income are recycled to the income statement as part of the gain or loss on disposal.

On the acquisition of an entity, goodwill and fair value adjustments recognized are treated as assets and liabilities of the acquired entity and translated at the spot rate on the transaction date.

3.3.4 Exchange rates of major currencies

	Closing rates		Average rates	
Against the euro (EUR):	2022	2021	2022	2021
US dollar (USD)	1.062	1.132	1.054	1.184
Canadian dollar (CAD)	1.443	1.449	1.370	1.483
Mexican peso (MXN)	20.611	23.309	21.206	23.993
Brazilian real (BRL)	5.592	6.454	5.435	6.370
Pound sterling (GBP)	0.883	0.840	0.852	0.860
Chinese yuan (CNY)	7.393	7.206	7.081	7.636
Indian rupee (INR)	87.902	84.394	82.732	87.477
Thai baht (THB)	36.754	37.754	36.874	37.791

3.4 Derivative instruments

Derivative instruments are used to manage financial exposures.

All derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently measured at their fair value. The method of recognizing the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged (see hedging policy below).

All changes in fair value of derivatives not qualifying as hedges are recorded as financial income or expense in the period in which they arise.

The fair values of listed instruments are based on their market values.

For unlisted instruments, fair values are determined using mathematical models, such as option pricing models, or methods based on discounted future cash flows. These models take into account market data.

Embedded derivatives are recognized separately if they are not closely related to the host contract.

3.5 Hedging

Some derivative instruments are eligible for hedge accounting and are therefore designated as either:

- hedges of the fair value of recognized assets or liabilities or a firm commitment (fair value hedges);
- hedges of highly probable forecast transactions (cash flow hedges).

At the inception of the transaction, the Group documents the relationship between the hedging instrument and the hedged item, as well as its risk management objectives and strategies. The Group also documents its assessment, both at inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values of hedged items.

Changes in the fair value of derivatives are accounted for differently depending on the type of hedge.

3.5.1 Fair value hedges

Changes in fair value of derivatives are recorded in financial income and expenses, together with any changes in the fair value of the hedged assets or liabilities that are attributable to the hedged risk.

3.5.2 Cash flow hedges

The effective portion of changes in the fair value of derivatives is recognized in other reserves. The ineffective portion of the gain or loss is recognized immediately in the income statement, in operating income (commodity price hedges) or financial income and expenses (interest rate hedges).

When options are used to hedge future transactions, only the changes in the options' intrinsic value are designated as hedging instruments. Changes in the intrinsic value and the time value in relation to the hedged item ("aligned time value") are recorded in other reserves.

For forward contracts used to hedge future transactions, the Group designates all the changes in fair value (including the forward points) as hedging instruments. These changes in fair value are recorded in other reserves.

Amounts accumulated in other reserves are recognized in the income statement over the period during which the hedged item affects the profit and loss, as follows:

- when the hedged item is a non-financial asset (for example, a consolidated investment or an inventory), deferred gains or losses, as well as deferred gains or losses on the time value of the option or contract forward points are included in the initial cost of the asset;
- the gains or losses resulting from the interest rate hedge are recognized in financial income at the same time as the interest on the loans that are hedged.

When a hedging instrument is sold or expires, or when a hedging instrument no longer meets the criteria required to qualify for hedge accounting, the amount accumulated in other reserves at that date is immediately recognized in profit or loss.

3.5.3 Derivatives not qualifying for hedge accounting

Certain other derivative instruments, while offering effective economic hedging in terms of the Group's financial policy, do not meet the criteria for hedge accounting or have not been treated as hedging instruments (refer to the policy relating to derivative instruments, above). Changes in the market value of these derivatives must therefore be recognized in financial income and expenses. For example, foreign exchange derivatives used to hedge the currency exposure of financial assets and liabilities recognized in the consolidated statement of financial position are not designated as hedging instruments.

3.6 Fair value of financial instruments

Fair value measurements are disclosed by level in the following fair value measurement hierarchy:

- Level 1: quoted prices in active markets. The fair value of financial instruments traded in active markets is based on quoted market prices at the date of the consolidated statement of financial position. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Group is the current bid price. These instruments, essentially cash and cash equivalents, as well as quoted unconsolidated equity investments, are included in level 1.
- Level 2: inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices). The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value these instruments are observable, these instruments, essentially cash management financial assets and derivative instruments, are included in level 2.
- Level 3: inputs for assets or liabilities that are not based on observable market data (i.e., unobservable inputs). If one or more of the significant inputs is not based on observable market data, the instrument, essentially non-quoted unconsolidated equity investments, is included in level 3.

Specific valuation techniques used to value, generally internally, financial instruments include:

- quoted market prices or dealer quotes for similar instruments (level 1);
- the fair value of interest rate swaps calculated internally as the present value of the estimated future cash flows based on observable yield curves (level 2);
- the fair value of forward foreign exchange contracts determined internally using forward exchange rates at the date of the consolidated statement of financial position, with the resulting value discounted back to present value (level 2).

Other techniques, such as discounted cash flow analysis, are used internally to determine fair value for the remaining financial instruments (level 3).

When observable yield curves include negative interest rates, those are used without adjustment to determine the fair value of derivatives.

The Group assesses the counterparty risk included in the fair value of its over-the-counter derivatives for which there is no exchange of collateral. The Group includes the effect of its exposure to the credit risk of the counterparty or the counterparty's exposure to the credit risk of the Group. The valuation for long-term derivatives with no exchange of collateral is based on discounted cash flows using a rate including the counterparty credit risk.

3.7 Definition of certain indicators presented in the consolidated financial statements

3.7.1 Net debt

Net debt is made up of current and non-current financial liabilities (including lease liabilities), as they appear on the consolidated statement of financial position, less:

- cash and cash equivalents as they appear on the consolidated statement of financial position;
- derivative instruments included in "Current financial assets" and "Non-current financial assets" on the consolidated statement of financial position;
- cash management financial assets included in "Current financial assets" on the consolidated statement of financial position (these assets are highly liquid, little affected by interest rate risk and foreign currency risk); and
- borrowing collateral included in "Current financial assets" and "Non-current financial assets" on the consolidated statement of financial position.

3.7.2 Segment EBITDA

The Group defines Segment EBITDA as segment operating income less depreciation of property, plant and equipment, right-of-use assets and amortization of intangible assets allocated to segments.

3.8 Revenue recognition

The sale of tires, in the original equipment or replacement market, constitutes the majority of Group income. In the replacement market, tires are sold to distributors (wholesalers, specialist dealers, etc.) who are customers of the Group. These distributors have the full and complete possibility to use the tires for their own benefit, or to market them, and in this case, to fix the resale price. Furthermore, they carry the inventory risk.

The terms of sale offered by Group companies, in line with normal market practice, vary according to the customer category and the country in which the sales are made. They provide however, that the payment for the goods sold will be made in a period appreciably less than one year and there is therefore no reason to adjust the amount of consideration received from customers to take into account the effects of a financing component.

Each delivery of tires, either in the original equipment market with car manufacturers or in the replacement market, represents a distinct and separate performance obligation to be fulfilled at a point in time and which corresponds to the loading of goods or their delivery, in accordance with the underlying contract.

The warranties offered to the buyers cover design or manufacturing defects, which may appear as irregular or excessive tire wear under normal conditions of use. These warranties, which do not provide the customer with any supplementary guarantee, apart from the fact that the tire is exempt from defects, continue to be accounted for in accordance with IAS 37 “Provisions, Contingent Liabilities, and Contingent Assets”.

The Group agrees, under certain conditions, to give trade concessions or to reimburse unsatisfied customers. Occasionally and under special circumstances, it also grants the right to return products already sold. This right gives rise to the recognition of a liability and a reduction in income, as well as an asset representing the Group's right to recover the goods that customers will return. In addition, the amount that the Group effectively receives for the tires delivered, as well as the revenue from sales recognized in the income statement, can vary as a result of deferred rebates stipulated in contractual agreements and/or at the start of marketing campaigns, which will be paid to the customers at the end of the reference period and depending on the achievement of qualitative or quantitative objectives set for that period. Their value is determined using the expected value method. The Group relies on the analysis of historical data and its accumulated experience to estimate the probable amount of rebates and discounts to be given to customers. Income from ordinary activities is therefore recognized taking into account the uncertainty surrounding the different components of variable consideration and to the extent that it is highly probable that the outcome of this uncertainty will not give rise to a significant reduction in the amount of sales already recognized, once the uncertainty is resolved. The difference between the amounts invoiced to the customers and the level of income recorded from ordinary activities results in the recognition of a liability in respect of the future reimbursement under “Other current liabilities” in the consolidated statement of financial position.

The other sales categories essentially comprise the management of tires for commercial fleets and the supply of telematics services, where the main objective is greater fuel economy and fleet efficiency. The services supplied under these contracts consist of a single performance obligation satisfied over time for which the sales revenue is recognized according to the stage of completion, measured on the basis of the work performed and the costs incurred.

The Group may enter into multi-year agreements with customers, which include a commitment regarding its capacity to supply the products, in exchange for a specific amount of consideration. This is to be paid in advance of fulfillment of the obligations to supply the products, which will be spread over the duration of the contract. As such, this commitment is considered to be linked to the supply of the products and will be recognized as revenue as and when the supply obligations are fulfilled. When the payment is received, a contract liability is recognized and split between the line items “Provisions and other non-current liabilities” and “Provisions and other current liabilities” in the consolidated statement of financial position, depending on the date the performance obligations are fulfilled.

3.9 Cost of sales

Cost of sales for the Group's manufacturing activities comprises the costs of manufacturing products and the cost of goods purchased for resale.

It includes the purchase cost of raw materials, production costs directly related to the manufactured products and all production overheads, based on the normal capacity of manufacturing facilities.

Production overheads include depreciation of property, plant and equipment, amortization of intangible assets relating to production and write-downs of inventories.

Cost of sales also includes a relevant portion of general overheads to the extent that they are directly attributable to bringing the manufactured products to their present location and condition.

For non-manufacturing activities, especially customer services, cost of sales includes all the costs incurred to produce, administer or execute a service delivered in the distribution network. Cost of sales for these activities mainly comprises employee benefits expense, depreciation of facilities and equipment, energy costs and the cost of acquiring and processing the data needed to produce the service.

3.10 Research and development expenses

Research costs cannot be capitalized. Development costs are capitalized as intangible assets when the conditions relating to the commercial and technical feasibility of the project, the ability to allocate the costs reliably and the probability of generating future economic benefits are fulfilled.

Development costs are reviewed annually in order to determine whether the criteria for recognition as intangible assets are met.

3.11 Segment operating income

Segment operating income measures the performance of the operating segments and is one of the Group's management indicators.

3.12 Other operating income and expenses

"Other operating income and expenses" records items that are not taken into account by management when measuring the performance of the operating segments due to their nature or their significant, unusual or abnormal characteristics. They include, in particular, the costs related to the reorganization and adaptation of activities and those related to major litigation (and the adjustments in the corresponding provisions), as well as impairment of goodwill and acquisition-related costs. Given the recent major acquisitions made by the Group, the amortization of trademarks and customer relationships recognized as part of a business combination is also recognized in other operating income and expenses. They also include gains and losses on disposals and changes in impairment of property, plant and equipment and intangible assets, acquisition price adjustments, as well as gains and losses related to changes in post-employment benefits. They are detailed in note 9 "Other operating income and expenses".

3.13 Income tax

Current and deferred taxes, plus any withholding tax on royalties and on distributions of retained earnings within the Group, are recorded in the consolidated income statement except if they relate to items recognized either in other comprehensive income or directly in equity, in which case they are also recognized, respectively, in other comprehensive income or directly in equity.

Current tax is based on the results of Group companies and is calculated according to local rules, including any adjustments to tax payable in respect of previous years.

Deferred tax is recognized, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amount in the consolidated financial statements, using enacted or substantially enacted tax rates that are expected to prevail when the temporary differences reverse.

A deferred tax asset or liability is recognized on initial recognition of transactions arising from business combinations and impacting the accounting or taxable profit or loss.

Deferred tax assets are recognized to the extent that it is probable that future taxable profit will be available against which the tax loss carryforwards and the temporary differences can be offset.

Deferred tax is calculated on temporary differences arising from investments in subsidiaries, joint ventures, and associates: deferred tax assets are recognized if the reversal is under the entity's control and is also probable. Deferred tax liabilities are recognized unless their reversal is controlled and not probable.

Tax positions are analyzed periodically and, if any positions are considered unlikely to be accepted by the tax authorities, a provision is booked for the most probable amount in order to cover the risk. Assets/liabilities resulting from uncertain tax treatments are included in current or deferred tax assets or liabilities in the consolidated statement of financial position.

3.14 Business combinations and goodwill

When the Group obtains control of an entity, the business combination is valued and accounted for by applying the acquisition method. Goodwill is calculated at the acquisition date as the difference between:

- the fair value of the consideration transferred including, if any, the fair value of any contingent consideration; and
- the fair value at the acquisition date of the identifiable acquired assets, the liabilities and contingent liabilities assumed.

The valuation period for a business combination does not exceed 12 months after the acquisition date.

Goodwill is allocated to cash-generating units (CGUs) or groups of CGUs that are expected to benefit from the synergies of the combination and that reflect the level at which the Group manages goodwill. Goodwill is tested for impairment annually.

3.15 Intangible assets

Intangible assets are recognized at cost. The cost of an intangible asset acquired as part of a business combination is its fair value at the acquisition date.

Intangible assets with indefinite useful lives are not amortized but are tested for impairment at least once a year. Those with finite useful lives are amortized on a straight-line basis over their estimated useful life:

- software: 3-7 years
- brands and trademarks: 5-20 years
- customer relationships: 5-20 years

3.15.1 CO_2 emission allowances

The Group participates in the European Union's Emissions Trading System. The emission allowances received or purchased are recognized as an intangible asset at their price on the transaction date. For emission allowances that are received rather than purchased, a government grant is recognized in liabilities for the same amount. The cost and liability corresponding to actual emissions and the income corresponding to the use of the government grant are accounted for using the price on the grant date.

3.16 Property, plant and equipment (PP&E)

Property, plant and equipment are measured at cost less accumulated depreciation and, when necessary, impairment.

The gross carrying amount includes the cost of acquisition or production cost and other costs directly attributable to the acquisition or the construction of the asset (including borrowing costs). Investment grants are initially accounted for as deferred income and are subsequently recognized as income over the useful life of the related asset.

Repair and maintenance costs are expensed as incurred. Other subsequent expenditures are included in the asset's carrying amount or recognized as a separate asset if the recognition criteria are met.

Property, plant and equipment are depreciated on a straight-line basis, except land, which is not depreciated. Depreciation of property, plant and equipment reflects the pattern in which the asset's future economic benefits are expected to be consumed. Depreciation is allocated to cost of sales, sales and marketing expenses, research and development expenses or general and administrative expenses.

The following depreciation periods, based on the expected useful lives of the respective assets, are applied throughout the Group:

- buildings and general land and building installations: 25 years
- petrochemical equipment: 25 years
- industrial and commercial equipment: 2-12 years
- computer and telecommunication equipment: 5 years
- vehicles: 5 years
- other: 5-12 years

The useful lives of the assets and their respective residual values are reviewed annually.

When assets are sold or otherwise disposed of, the difference between the net proceeds and the net carrying amounts of the assets is recognized in “Other operating income and expenses”.

3.16.1 Leases

A contract is or contains a lease if it conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time. The Group assesses whether a contract is or contains a lease on the inception of the lease, which is the earlier of the date of the lease agreement and the date of commitment by the parties to the principal provisions of the lease.

Substantially all of the Group's leases are leases where the Group is the lessee. Leased assets are mainly real estate assets (points of sale for the Group's integrated distribution network, sales and administrative offices), passenger cars and forklifts.

Lease liabilities

Lease liabilities correspond to the present value of future lease payments, excluding variable lease payments that do not depend on an index or a rate.

For contracts that include a lease component and non-lease components (such as services), only the lease component is taken into account in calculating the present value.

The interest rate implicit in the lease is used as the discount rate if it can be readily determined. If the implicit rate cannot be readily determined, each Group entity uses its incremental borrowing rate reflecting its specific credit risk, the currency of the lease and the weighted average maturity of the outstanding lease liability.

Over the life of the contract, the interest expense increases the lease liability while the lease payments reduce it.

The carrying amount of the lease liability and the corresponding right-of-use asset is adjusted to reflect any change in the lease term, any change in the assessment of an option to purchase the underlying asset, any change in the amount that the lessee expects to have to pay to the lessor under the residual value guarantee or any change in future lease payments resulting from a change in an index or a rate used to determine those payments.

Right-of-use assets

Right-of-use assets corresponding to leased property, plant and equipment are initially measured at cost, corresponding to the sum of the present value of the outstanding lease payments at the commencement date. Any lease payments made at or before the commencement date, any initial direct costs and an estimate of costs to be incurred by the Group in dismantling or restoring the underlying asset, are included in the value of the right-of-use asset, less any lease incentives.

The right-of-use asset is depreciated over the shorter of the lease term and the useful life of the leased asset if the transfer of ownership of the leased asset is uncertain or is not provided for in the contract.

Enforceable period

The enforceable period of a lease is determined by taking into account all the economic facts and circumstances (such as contractual terms and conditions for the optional periods compared with market rates, significant leasehold improvements, costs relating to the termination of the lease, such as negotiation costs, relocation costs, costs associated with returning the underlying asset in a contractually specified condition or to a contractually specified location), and contractual options to extend or terminate the lease. Consequently, for leases that are automatically renewable and the 3/6/9-year commercial leases that are common in France, the enforceable period can be longer than the period to the contractual end date. This information is used to determine the most economically relevant end date for the lease. For certain categories of leased assets (mainly vehicles), the Group considers that there is no reasonably certain extension option. Consequently, the duration is selected to coincide with the initial term of the lease. For real estate leases, the Group defines the reasonable end date of the lease, based on the enforceable period, in line with the asset's expected period of use. Accordingly, for leases with a residual term of more than ten years, the first enforceable exit option is chosen unless specific information and economic circumstances lead the Group to define a longer period.

Exceptions

Leases with a term not exceeding 12 months or concerning low-value assets (mainly computers, printers and tools) are not recognized in the consolidated statement of financial position.

The payments related to these leases are expensed on a straight-line basis over the duration of the contracts. Variable lease payments are expensed in the period in which the triggering event or situation occurs.

3.17 Impairment of non-financial assets

When there is any indication that the recoverable amount of an asset (goodwill, intangible assets or property, plant and equipment) may be lower than its carrying amount, the recoverable amount of the asset is measured and if needed, an impairment is recognized. Whether there is an indication of impairment or not, an annual impairment test is performed for goodwill, intangible assets with an indefinite useful life and intangible assets not ready for use, by comparing their carrying amount with their recoverable amount.

At individual asset level, indications of impairment generally relate to a fall in market value, technical obsolescence or an anticipated change of use. The recoverable amount is usually based on the market value.

At Group level, non-financial assets (including right-of-use assets, note 3.16.1) are combined for impairment testing purposes in the smallest identifiable group of assets that generates cash flows that are largely independent of cash flows from other assets or groups of assets (cash-generating units – CGUs).

For the tire business, CGUs are based on industrial asset groups, generally production plants, working together to manufacture and provide product offerings that meet the needs of customers with similar expectations in homogeneous markets or market segments.

CGUs related to non-tire businesses (Services and Solutions, Experiences, High-Technology Materials and Distribution) generally cover the scope of each of these activities.

CGUs to which goodwill has been allocated are tested annually for impairment or more frequently if events or changes in circumstances indicate a potential impairment loss. For the purpose of impairment testing, goodwill is allocated to a CGU or group of CGUs on the same basis as that used by the Group's management to monitor the performance of the businesses and assess synergies deriving from business combinations.

CGUs to which no goodwill is allocated are tested for impairment only if there is an indication that they may be impaired. In assessing whether there is any indication that a CGU may be impaired, the Group has defined three indicators for the tire business CGUs. They measure respectively the trends (i) in the market served by the CGU, (ii) in financial performance through the cost of sales margin and (iii) in the use of the installed production capacity. For the non-tire business CGUs, as well as for the distribution CGUs, the indicator used to measure trends in financial performance serves as the triggering indicator for an impairment test.

Recoverable amount is the higher of value in use and fair value less costs of disposal.

For most CGUs, recoverable amount is based on value in use, which is equal to estimated future cash flows calculated using the weighted average cost of capital (WACC) as a discount rate. Future cash flows are mainly based on the CGUs' five-year cash flow forecasts plus a terminal value, measured by discounting projected cash flows using the WACC. The discount rate is based on the cost of equity capital derived from the market-expected return on the Company's shares, the cost of debt and a risk premium reflecting the risks associated with the countries where the assets are located. The gearing and the beta are based on data from comparable segments and take into account the specificities of certain activities.

The recoverable amount of the distribution CGUs is measured at fair value less costs of disposal. Since most of these assets are land and buildings, external appraisals or other real estate valuation techniques are applied to measure their fair value.

Any impairment loss is recognized first against goodwill, and any remaining amount is allocated among the other non-current assets, proportionally to their net carrying amounts at the closing date.

When the circumstances which previously caused non-financial assets to be impaired no longer apply, the impairment losses are reversed accordingly. However, goodwill impairment can never be reversed.

Changes in impairment losses, including any reversals, are recognized in "Other operating income and expenses".

3.18 Non-derivative financial assets

3.18.1 Asset categories

The Group classifies and measures its debt instruments in the following categories depending on their alignment with "solely payment of principal and interest" (SPPI) criteria and with its business model:

- amortized cost: financial assets held to maturity in order to collect repayments from principal and interest;
- fair value through profit or loss: financial assets that do not meet the criteria to be classified as amortized costs (SPPI and HTC).

The Group measures all its unconsolidated equity investments at their fair value. The Group chooses to use the irrevocable option to record fair value adjustments in other comprehensive income and the realized gains or losses on disposal are not recycled in the income statement. The impairment losses recognized on equity investments are not shown separately from the other changes in fair value.

3.18.2 Initial recognition and derecognition

Purchases and sales of non-derivative financial assets are recognized on the trade-date, i.e., the date on which the Group commits to purchase or sell the asset. Non-derivative financial assets are initially recognized at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss.

Non-derivative financial assets are derecognized when the rights to receive cash flows from the assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

3.18.3 Measurement

Loans and receivables are measured at amortized cost using the effective interest rate method.

Financial assets at fair value are valued by direct reference to a price quoted in an active market or on the basis of market assumptions (note 3.6 "Fair value of financial instruments"). Gains and losses, realized or unrealized, arising from changes in the fair value of financial assets at fair value through profit or loss are recognized immediately in other operating income and expenses.

Gains and losses, realized or unrealized, arising from changes in the fair value of financial assets at fair value through comprehensive income are recorded in other comprehensive income and never impact the income statement.

3.18.4 Impairment

At each reporting date, the Group looks for any objective indication of impairment of financial assets recorded at amortized cost.

The model for calculating the expected credit loss is determined on the basis of the counterparty rating and the associated default probability. The impairment loss is calculated over a period of 12 months given the non-deterioration of the credit risk of the counterparties. It is recognized in the income statement.

When the credit risk of a financial asset at amortized cost increases significantly, the expected credit loss is calculated over the life of the asset.

If there is no longer a reasonable expectation to recover the value of a financial asset at amortized cost, the asset is derecognized from the consolidated statement of financial position and impacts the income statement.

3.19 Inventories

Inventories are carried at the lower of cost and net realizable value.

The cost of raw materials, supplies and purchased finished goods includes the purchase price and other costs directly attributable to the acquisition. The cost of work in progress and manufactured finished goods comprises direct labor costs, other direct costs and production overheads based on the normal capacity of production facilities. Borrowing costs are expensed as incurred. The measurement of inventories and cost of sales using the standard cost method put in place by the Group, taking variances into account, is close to what would be obtained using the actual cost method.

Net realizable value is the estimated selling price less the estimated costs of completion and sale.

An impairment loss is recognized when net realizable value is lower than cost and is reversed when it becomes apparent that the circumstances which previously caused inventories to be written down below cost no longer exist. Indications of impairment include physical damage, obsolescence, slow-moving items, and market changes.

3.20 Trade receivables

Trade receivables are initially recognized at the amount unconditionally due by the customer. The Group manages its trade receivables in order to collect the contractual cash flows and measures its receivables at amortized cost, according to the effective interest rate method, after deduction of any impairment losses.

When payment terms are less than one year, the initial fair value and the subsequent amortized cost are equal to the nominal amount to the extent that the receivable does not include a significant financial component.

The Group applies the simplified approach provided under IFRS 9, which consists of calculating the expected credit loss over the life of the trade receivable. This model makes it possible to determine a credit loss expected at maturity for all trade receivables, as soon as they are recognized.

Expected credit losses are based on customer payment patterns that have been observed over 36 months, and trade credit losses historically recorded during this period.

An impairment loss is also recognized whenever there are objective indications that the Group will not be able to recover all amounts due under the terms of the original transaction. Bankruptcies, the use of legal procedures to protect against creditors, cases of known insolvency or disappearance of the debtor, late payments of more than six months, economic or political risks in the country of residence of the debtor, as well as the deterioration of the latter's solvency are all indicators that suggest that a trade receivable must be impaired. The amount of the impairment loss is the difference between the carrying amount of the asset and the present value of the estimated future cash inflows at the initial effective interest rate. Before recognizing an impairment loss, the quality of the guarantees potentially obtained must be assessed, as well as the capacity to implement them. The impairment loss is recognized in "Sales and marketing expenses".

When the receivable is irrecoverable, it is canceled by offsetting it against the previously recognized impairment loss. Any subsequent cash inflows corresponding to previously derecognized receivables are recorded by reducing "Sales and marketing expenses" in the income statement.

3.21 Cash and cash equivalents

Cash and cash equivalents include cash in hand, demand deposits and other short-term highly liquid investments with initial maturities not exceeding three months. Term deposits maturing in more than three months, but with early withdrawal terms of less than three months with guaranteed capital and negligible withdrawal costs are also classified as cash and cash equivalents.

3.22 Share capital

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new ordinary shares are shown in equity as a deduction, net of tax, from the proceeds.

Treasury shares are presented separately in reserves. The amount of the consideration paid, which includes directly attributable costs, net of any tax effects, is recognized as a deduction from equity. When treasury shares are sold, the amount received is recognized as an increase in equity and the resulting surplus or deficit on the transaction is presented within retained earnings.

3.23 Non-derivative financial liabilities

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the consolidated statement of financial position date.

Non-derivative financial liabilities are recognized initially at fair value, net of transaction costs, and subsequently at amortized cost. Any difference between the issue proceeds (net of transaction costs) and the redemption value is recognized in the income statement over the period of the borrowing using the effective interest method.

The fair value of the liability portion of a convertible bond is determined using a market interest rate for an equivalent non-convertible bond. This amount is recorded as a liability at amortized cost. The remainder of the proceeds (after deducting the debt component), representing the value of the conversion option, is recognized:

- in equity if the exercise of the option results in the delivery of a fixed amount of shares - the initial value of the option is not subsequently remeasured; or

- as a financial liability at fair value through profit or loss in cases where the conversion option does not meet the criteria for recognition in equity.

To the extent that borrowings are hedged by qualifying fair value hedges, the carrying amount of the hedged item is adjusted for the change in fair value attributable to the risk being hedged.

3.24 Employee benefit obligations

Wages, salaries, social security contributions, payments to defined contribution plans, annual leave and sick leave payments, bonuses and non-monetary benefits are recognized in the year in which the associated services are rendered by the employees.

Where employee benefits, such as certain pension plans, other post-employment benefits and other long-term benefits, are provided by the Group, a liability or an asset and the related costs are recognized.

3.24.1 Pension and other post-employment benefits

Post-employment benefits are benefits payable after employment ceases. The Group provides retirement benefits for most of its employees, either directly or by contributing to independently administered funds. The benefits provided by the Group vary according to the legal, tax and economic situation in each country and are usually based on one or more factors such as employees' compensation, age and years of service. The obligations relate both to current retirees and to the entitlements of future retirees.

The Group provides post-employment benefits under defined contribution plans and defined benefit plans.

In the case of defined contribution plans, the Group pays fixed contributions to fund managers or insurance companies. Once the contributions have been paid, the Group has no legal or constructive obligation to make further contributions if the fund does not hold sufficient assets to pay the benefits expected by the beneficiaries.

The regular contributions are recognized as an expense for the year in which they are due and, as such, are included in cost of sales, sales and marketing expenses, research and development expenses or general and administrative expenses.

Group management policies regarding post-employment benefits have led to the transformation of defined benefit plans into defined contribution benefit plans since the early 2000s. Nevertheless, a significant portion of the post-employment benefit plans provided by the Group are still defined benefit plans. They are either externally funded plans (mainly pension plans), for which the plan assets are held separately in independently administered funds, or unfunded plans such as healthcare plans and end-of-service benefit plans.

Post-employment benefit obligations, and the related current service cost, are measured using the projected unit credit method.

A defined benefit plan is a plan that defines an amount of benefits that the Group is committed to pay to current and former employees.

All defined benefit plans are subject to actuarial valuations carried out annually for the largest plans and on a regular basis for other plans. These actuarial valuations are carried out with the help of independent actuaries. Actuarial assumptions, primarily discount rates, projected salary increase rates, inflation rates and expected growth in healthcare costs are incorporated into the actuarial valuations and reviewed annually.

The liabilities or assets recognized in the consolidated statement of financial position in respect of defined benefit plans correspond to the present value of the defined benefit obligation at the reporting date, less the fair value of plan assets. They take into account any unrecognized assets not available in the form of refunds or a reduction in future contributions.

The present value of the defined benefit obligation corresponds to the estimated future cash outflows, calculated using a discount rate established by reference to a market rate based on interest rates of high-quality corporate bonds that have maturities approximating the duration of the related post-employment benefit obligation.

A net asset is recognized only to the extent that it represents a future economic benefit that is actually available to the Group in the form of refunds from the plan or reductions in future contributions.

When a defined benefit plan is subject to a minimum funding requirement (MFR), the Group determines whether paying these contributions may give rise to a surplus in that defined benefit plan. To the extent that the surplus in the plan exceeds the available economic benefits, the Group immediately recognizes a decrease in the defined benefit asset or an increase in the defined benefit liability.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in other comprehensive income in the period in which they arise.

Past service costs may arise when new defined benefit plans are set up, when changes to benefits payable under an existing defined benefit plan are introduced or when curtailments occur. They are recognized immediately in the income statement.

The Group's net benefit plan cost recognized in the income statement includes the current service cost for the period, curtailment and settlement gains and losses, past service cost, as well as actuarial gains and losses arising under other long-term benefit plans. Net interest on the net defined benefit liability (asset) is recognized outside operating income.

3.24.2 Share-based payments

Share grants and performance share plans

The Group may adopt plans to grant free shares of the Company to certain employees or to its Managers.

The grant date is the date when the Managing Chairman decides on the list of plan beneficiaries and the number of performance shares granted to them.

The fair value of the performance shares granted corresponds to the Company's share price on the grant date less:

- the present value of dividends that will not be received by the grantees during the vesting period;
- the value of the stock market performance condition on the grant date, which depends on the probability of the condition being fulfilled.

The number of shares that will ultimately be issued at the end of the vesting period depends on the extent to which the Group's performance and service conditions are met.

The total benefit cost is based on the fair value of the performance shares and the estimated number of shares that will ultimately be issued. This cost is recognized over the vesting period and is recognized in "Segment other income and expenses".

Employee share ownership plan

The Group may offer most of its employees the opportunity to participate in a share ownership plan allowing them to purchase Company shares.

These shares, which are subject to certain restrictions relating to their sale or transfer, may be purchased by the employees at a subscription price based on the Michelin share price, less a discount. The benefit granted to the employees equals the difference between the shares' fair value and their purchase price, multiplied by the number of shares acquired.

It is expensed immediately by the Group, as no vesting period applies, and is recognized under "Employee benefit costs – share-based payments", within "Segment other income and expenses".

3.25 Provisions

Provisions are recognized when a legal or constructive obligation has been incurred that will probably lead to an outflow of resources that can be reasonably estimated.

Provisions for reorganizations and adaptation of activities are recognized when the Group has a detailed formal plan that has been announced.

Provisions are recorded at the net present value of the estimated cash outflows.

3.26 Trade payables

Trade payables are recognized initially at fair value and are subsequently measured at amortized cost using the effective interest method.

The Group has put in place paying agent agreements with several financial institutions. Under these agreements, the financial institution acts as a paying agent with respect to invoices due to suppliers who have entered into a bilateral agreement with the financial institution in order to be in position to factor their trade receivables from the Group.

The agreements' classification in trade payables is supported by a multi-criteria analysis. In particular:

- the factoring transaction is completely independent from the commercial relationship;
- the supplier has full discretion to decide - on a case-by-case basis - whether to factor its receivables;
- the date of payment to the supplier or the bank, whichever is the case, corresponds to the payment date shown on the invoice;
- the Group is not affected by the factoring cost because the discount is borne by the supplier and is paid directly to the bank.

Trade payables concerned by the program are presented separately in the consolidated statement of financial position under "Trade payables covered by reverse factoring contracts". In the consolidated statement of cash flows, these transactions are included in operating or investing activities (note 31 "Notes to the statement of cash flows").

NOTE 4 CHANGES IN THE SCOPE OF CONSOLIDATION

4.1 Operations in 2022

4.1.1 Royal Lestari Utama (RLU)

On July 27, 2022, the Group completed the acquisition of 100% of Royal Lestari Utama, a natural rubber producer. The acquisition confirms the Group's commitment to investing in the sustainable natural rubber sector.

Royal Lestari Utama, which was previously accounted for under the equity method, was fully consolidated in the second half of the year.

The provisional purchase price allocation resulted in the recognition of net goodwill in the amount of €46 million at December 31, 2022, as shown in the following table:

(in € millions)	**At the acquisition date**
Fair value of net assets acquired	79
Less: consolidated net assets	(33)
PROVISIONAL GOODWILL	**46**

Identification and measurement at their acquisition-date fair value of the identifiable assets acquired and liabilities assumed began in the second half of 2022 and will be completed within 12 months from the acquisition date, i.e., no later than July 27, 2023.

4.1.2 Conveyor Products & Solutions

The Group acquired 100% of the Australian company Conveyor Products & Solutions, a world leader in the development and manufacture of conveyors for the mining market, on July 14, 2022. The acquisition has strengthened the Group's access to global markets and expanded its services portfolio.

This company was fully consolidated in the second half of the year.

The provisional purchase price allocation resulted in the recognition of net goodwill in the amount of €40 million at December 31, 2022, as shown in the following table:

(in € millions)	**At the acquisition date**
Fair value of net assets acquired	54
Less: consolidated net assets	(14)
PROVISIONAL GOODWILL	**40**

Identification and measurement at their acquisition-date fair value of the identifiable assets acquired and liabilities assumed began in the second half of 2022 and will be completed within 12 months from the acquisition date, i.e., no later than July 14, 2023.

4.2 Completion of 2021 transactions

4.2.1 Allopneus

The acquisition of Allopneus resulted in the recognition of provisional goodwill in the amount of €65 million at December 31, 2021.

The final purchase price allocation resulted in the recognition of goodwill in the amount of €33 million, as shown in the following table:

(in € millions)	**2022**
Investment in an associate at market value (40%)	31
Purchase price (60%)	47
Less: consolidated net assets (100%)	(13)
Less: Allopneus brand recognized as an intangible asset	(36)
Other – of which deferred tax liabilities	4
FINAL GOODWILL	**33**

4.2.2 Solesis Inc.

The purchase price allocation was completed during the first half of 2022. The final opening statement of financial position of Solesis Holdings LLC at May 28, 2021, included in "Investments in equity-accounted companies", is as follows:

(in € millions)	**Net assets**
Goodwill	186
Intangible assets	203
Property, plant and equipment (PP&E)	50
Cash allocated to preferred stock	282
Non-current assets	**721**
Inventories	11
Trade receivables	27
Cash and cash equivalents	11
Current assets	**49**
TOTAL ASSETS	**770**
Equity	**366**
Non-current financial liabilities	108
Debt related to preferred shares	282
Non-current liabilities	**390**
Trade payables	9
Provisions and other current liabilities	5
Current liabilities	**14**
TOTAL EQUITY AND LIABILITIES	**770**

Additional information about Solesis' financial position at December 31, 2022 is provided in note 17.3.

NOTE 5 SEGMENT REPORTING

Segment information is presented according to the following three operating segments:

- automotive and related distribution;
- road transportation and related distribution;
- Specialty businesses and related distribution.

The Specialty businesses include the Mining, Beyond-road, Two-wheel and Aircraft tire activities as well as the Conveyor Belts and High-Tech Materials activities. The Services & Solutions businesses are included for the most part in the "Road transportation and related distribution" segment.

Operating segment performance is measured primarily on the basis of sales and segment operating income, calculated according to the same measurement principles used in the consolidated income statement.

Segment assets consist of goodwill, intangible assets, property, plant and equipment, right-of-use assets, trade receivables and finished product inventories. Corporate intangible assets and property, plant and equipment are allocated to each segment in proportion to the amount of their directly attributed assets. The amounts provided to the Group's management in respect of operating segment assets are measured in a manner consistent with the consolidated financial statements. Capital expenditure consists of additions of property, plant and equipment and intangible assets.

No operating liabilities are allocated to the segments in the internal report provided to the Group's management.

Segment information is as follows:

	2022				2021			
(in € millions)	**Automotive and related distribution**	**Road transportation and related distribution**	**Specialty businesses and related distribution**	**Total**	**Automotive and related distribution**	**Road transportation and related distribution**	**Specialty businesses and related distribution**	**Total**
PROFIT AND LOSS INFORMATION								
Sales	14,138	7,462	6,990	**28,590**	11,998	6,233	5,564	**23,795**
Segment operating income	1,711	641	1,044	**3,396**	1,643	599	724	**2,966**
As a percentage of sales	*12.1%*	*8.6%*	*14.9%*	***11.9%***	*13.7%*	9.6%	13.0%	***12.5%***
SEGMENT ASSETS								
Goodwill, PP&E, intangible assets and right-of-use assets	8,100	3,920	5,359	**17,379**	7,625	3,636	5,101	**16,362**
Finished product inventories[1]	1,708	951	1,129	**3,788**	1,408	791	837	**3,036**
Trade receivables	1,789	1,328	1,088	**4,205**	1,605	1,130	841	**3,576**
Segment assets	**11,597**	**6,199**	**7,576**	**25,372**	**10,638**	**5,557**	**6,779**	**22,974**
Other information								
Capital expenditure	1,150	560	431	**2,141**	889	429	387	**1,705**

(1) The figures at December 31, 2021 have been restated for comparison purposes (note 2.7).

Sales recognized at the time when control of the goods or services is transferred to the customer represented 97.5% of Group sales in 2022 (2021: 97.4%). These sales totaled €27,873 million (2021: €23,174 million). They mainly include sales of tires for the original equipment market and the replacement market, as well as sales of Fenner conveyor belts.

In 2022, the amount recognized in sales for performance obligations satisfied over time stood at €717 million, representing 2.5% of total sales for the year (2021: €621 million, representing 2.6% of total sales). This amount corresponds for the most part to revenue derived from commercial fleet tire management contracts and contracts for the supply of telematics services, as described in note 3.8.

Segment reporting assets are reconciled to total Group assets as follows:

(in € millions)	December 31, 2022	December 31, 2021
Total segment assets(1)	**25,372**	**22,974**
Non-current financial assets and other non-current assets	1,161	1,404
Investments in equity-accounted companies	1,102	1,103
Deferred tax assets	630	751
Other net inventories (raw materials and supplies, work in progress)	2,530	2,079
Current financial assets	652	713
Other current assets	1,315	1,038
Cash and cash equivalents	2,584	4,482
TOTAL GROUP ASSETS	**35,346**	**34,544**

(1) The figures at December 31, 2021 have been restated for comparison purposes (note 2.7).

Information by region breaks down as follows:

	2022				2021			
(in € millions)	Europe	North America	Other	Total	Europe	North America	Other	Total
Sales	10,140	10,920	7,530	**28,590**	9,014	8,389	6,392	**23,795**
Goodwill, PP&E, intangible assets and right-of-use assets	7,194	5,331	4,854	**17,379**	6,723	5,042	4,597	**16,362**
Capital expenditure	1,046	685	410	**2,141**	875	464	366	**1,705**

Europe includes the Western and Eastern European countries. North America includes Mexico. Asian, South American, Middle-Eastern, Oceanic and African countries are included in Other.

The Group sales information is based on the location of the customer.

Sales generated in France amounted to €2,484 million in 2022 (2021: €2,066 million). Goodwill, intangible assets and PP&E located in France amounted to €2,564 million in 2022 (2021: €2,545 million).

Approximately 80% of North American sales were generated in the United States in 2021 and 2022.

No single external customer accounted for 10% or more of the Group's sales in 2022 and 2021.

NOTE 6 EXPENSES BY NATURE

The following segment operating costs are allocated by function to the appropriate expense headings in the income statement:

(in € millions)	2022	2021
Raw materials and consumables used and changes in finished product inventories	(10,815)	(8,212)
Employee benefit costs	(6,938)	(6,430)
Transportation of goods	(2,056)	(1,685)
Depreciation and amortization(1)	(1,866)	(1,734)
Other expenses	(3,519)	(2,768)
EXPENSES BY NATURE	**(25,194)**	**(20,829)**

(1) Excluding amortization of trademarks and customer relationships acquired through business combinations.

NOTE 7 EMPLOYEE BENEFIT COSTS

Employee benefit costs are allocated by function to the appropriate expense headings in the income statement:

(in € millions)	2022	2021
Wages and salaries	(5,545)	(5,140)
Payroll taxes	(1,027)	(957)
Defined benefit plan costs (note 27.1)	(105)	(109)
Defined contribution plan costs (note 27.2)	(253)	(218)
Share-based payments – current service cost (note 25)	(20)	(21)
EMPLOYEE BENEFIT COSTS(1)	**(6,950)**	**(6,445)**

(1) Of which €6,938 million is recognized in "Segment operating income" (note 6) and €12 million in "Other operating income and expenses" (note 9).

The average number of employees on payroll in 2022 was 128,287 (2021: 124,037).

NOTE 8 SEGMENT OTHER INCOME AND EXPENSES

Segment other income and expenses are recognized in the income statement as follows:

(in € millions)	2022	2021
Share-based payments – current service cost (note 28.1)	(20)	(21)
Employee share ownership plan cost (note 28.2)	(21)	-
Covid-19 health and safety costs	(9)	(26)
Other operating income/(expenses)	24	(20)
SEGMENT OTHER INCOME AND EXPENSES	**(26)**	**(67)**

NOTE 9 OTHER OPERATING INCOME AND EXPENSES

Other operating income and expenses are detailed in the table below:

(in € millions)	2022	2021
Amortization of acquired trademarks and customer relationships (note 9.1)	(78)	(78)
Reorganization and adaptation of activities (note 9.2)	(73)	(86)
Impairment of non-current assets (note 9.3)	(36)	(116)
Employee benefit obligations (note 9.4)	(12)	(15)
Other (note 9.5)	(176)	106
OTHER OPERATING INCOME AND EXPENSES	**(375)**	**(189)**

9.1 Amortization of acquired trademarks and customer relationships

Amortization of intangible assets recognized in the course of a business combination amounted to €78 million in 2022 (2021: €78 million):

- €27 million related to amortization of brands or trademarks (2021: €25 million);
- €51 million to amortization of customer relationships (2021: €53 million).

9.2 Reorganizations and adaptation of activities

9.2.1 Year ended December 31, 2022

A provision of €142 million was set aside at the year-end for the implementation of support measures under the simplification and competitiveness plan's third Collective Settlement Agreement (*Rupture Conventionnelle Collective* or "RCC" 3) (note 29) and a €118 million provision for pension and other defined benefit obligations was reversed (note 27.1).

The net expense covered by provisions booked in 2022 for the third phase of the RCC agreement amounts to €24 million.

The balance is explained by various provisions set aside to further improve the Group's industrial and service competitiveness in a number of countries, including the United States, Italy and Germany.

9.2.2 Year ended December 31, 2021

The €86 million expense for the year includes the €21 million net charge to provisions in France for the first phase and second phase Collective Settlement Agreements, as well as various provisions set aside to continue to improve the Group's industrial and service competitiveness in a number of countries, including Germany and Italy.

9.3 Impairment of non-current assets

9.3.1 Year ended December 31, 2022

This amount consists of impairment losses on intangible assets for €21 million and on property, plant and equipment for €15 million.

9.3.2 Year ended December 31, 2021

This amount includes impairment losses:

- on property, plant and equipment and right-of-use assets for €75 million (of which €63 million on plant and equipment); and
- on intangible assets for €41 million.

9.4 Employee benefit obligations

No material events occurred in 2022 or 2021.

9.5 Other

9.5.1 Year ended December 31, 2022

The amount of €176 million reported under this caption mainly includes impairment losses and provisions related to the Group’s operations in Russia, for €139 million (note 2.5) and a €13 million provision for the restructuring of Fenner’s conveyor belt business in the United Kingdom which is heavily exposed to the Russian market.

9.5.2 Year ended December 31, 2021

Net other income for the year in the amount of €106 million corresponds primarily to the €114 million gain realized on the sale of part of the Group’s interest in Solesis.

NOTE 10 COST OF NET DEBT AND OTHER FINANCIAL INCOME AND EXPENSES

Cost of net debt and other financial income and expenses are broken down in the table below:

(in € millions)	**2022**	**2021**
Interest expense	(276)	(176)
Interest expense on lease liabilities	(31)	(30)
Interest income on cash, cash equivalents and cash management financial assets	12	(11)
Interest rate derivatives	60	32
Fees on credit lines	(8)	(9)
Capitalized borrowing costs	4	2
COST OF NET DEBT	**(239)**	**(192)**
Net income from financial assets (other than cash and cash equivalents and cash management financial assets)	21	7
Currency remeasurement (including currency derivatives)	(59)	(13)
Other	16	2
OTHER FINANCIAL INCOME AND EXPENSES	**(22)**	**(4)**

10.1 Derivatives not accounted for using hedge accounting

As described in the financial risk management policy, the Group's financing activities are mostly centralized (note 33.1.2 “Liquidity risk”) and the interest rate risk is managed through the use of “plain vanilla” derivative instruments (note 33.1.4 “Interest rate risk”). As a consequence:

- most borrowings are denominated in euros (note 26 “Financial liabilities”);
- some of these borrowings are subsequently swapped into foreign currencies to finance the foreign subsidiaries; and
- derivatives are purchased to manage the interest rate risk in these currencies (note 16 “Derivative instruments”).

This process is described in the summary table in note 33.2.3 “Interest rate risk”.

Although these transactions provide effective economic hedges, they do not qualify for hedge accounting under IFRS and therefore they cannot be recognized as cash flow hedges as described in note 3.5 “Hedging”. Fluctuations in the derivatives' fair values are therefore accounted for in the income statement. The increase in fair value during the year amounted to €60 million (2021: increase of €32 million) and is included in “Cost of net debt” under “Interest rate derivatives”.

10.2 Ineffective hedges

The effectiveness of the hedge is determined at the beginning of the hedging relationship and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and the hedging instrument. A hedging relationship may become ineffective if the timing of the planned transaction changes from the original estimate. This ineffectiveness is not material.

NOTE 11 INCOME TAX

(in € millions)	2022	2021
Current tax expense (note 18.2)	(625)	(629)
Deferred tax benefit/(expense) (note 18.1)	(22)	3
INCOME TAX	**(647)**	**(626)**

Current tax includes €39 million of withholding tax on royalties and on retained earnings distributed between Group companies (2021: €15 million).

The Group's tax proof is presented in the table below:

(in € millions)	2022	2021
Income before taxes	**2,656**	**2,471**
Tax calculated using domestic tax rates applicable to income in the respective countries	(556)	(537)
Tax effect of:		
• untaxed transactions	(52)	(1)
• deferred tax assets not recognized during the period	(47)	(26)
• net change in unrecognized deferred tax assets	43	46
• changes in tax rates	(5)	3
• taxes with no tax base (tax credits, withholding tax, etc.)	(20)	(33)
• other items	(10)	(78)
INCOME TAX	**(647)**	**(626)**

The Group has operations in various countries that have different tax laws and rates. The weighted average domestic tax rate of Group companies may therefore vary from year to year depending on the relative size of taxable incomes.

Effective tax rates may differ from theoretical rates, particularly due to unrecognized deferred tax assets, withholding taxes, tax credits and other taxes not based on income.

The utilization of deferred tax assets is periodically reviewed at the tax entity level and may lead to the recognition of previously unrecognized deferred tax assets.

NOTE 12 EARNINGS PER SHARE

Basic earnings per share are calculated by dividing income attributable to the shareholders of the Company by the weighted average number of shares outstanding during the year, excluding shares bought back by the Group and held as treasury shares.

Diluted earnings per share are calculated by adjusting the weighted average number of shares outstanding to assume conversion of all dilutive potential shares. At December 31, 2022, the Company had only one type of dilutive potential shares: performance shares (note 28.1 "Performance share plans"). The last stock option plan expired on June 30, 2021, and no stock options were outstanding at the end of 2022.

No share transactions affecting the weighted average number of shares used to calculate basic earnings per share and diluted earnings per share occurred after the end of the 2022 reporting period.

	2022	2021[1]
Net income *(in € millions)*, excluding non-controlling interests	2,001	1,844
• Less, estimated General Partners' profit shares	(2)	(5)
Net income attributable to the shareholders of the Company used to calculate basic earnings per share	**1,999**	**1,839**
Weighted average number of shares outstanding *(thousands of shares)* **used to calculate basic earnings per share**	**712,364**	**713,448**
• Plus, adjustment for performance shares	4,886	4,872
Weighted average number of shares used to calculate diluted earnings per share	**717,250**	**718,320**
EARNINGS PER SHARE *(in €)*		
• Basic	**2.81**	2.58
• Diluted	**2.79**	2.56

(1) Data for 2021 have been restated to reflect the four-for-one stock split on June 16, 2022.

NOTE 13 GOODWILL AND INTANGIBLE ASSETS

Changes in goodwill and intangible assets are as follows:

(in € millions)	Goodwill	Intangible assets	Total
Gross carrying amounts at January 1, 2021	**2,225**	**4,018**	**6,243**
Translation adjustments	126	153	279
Additions (including new emission allowances: €30 million)	-	240	240
Disposals	-	(58)	(58)
Change in scope of consolidation	42	(236)	(194)
Transfers and other	-	8	8
Gross carrying amounts at December 31, 2021	**2,393**	**4,125**	**6,518**
Translation adjustments	88	31	119
Additions (including new emission allowances: €56 million)	-	278	278
Disposals	-	(200)	(200)
Changes in scope of consolidation	107	34	141
Transfers and other	-	9	9
Gross carrying amounts at December 31, 2022	**2,588**	**4,277**	**6,865**
Amortization and impairment at January 1, 2021	**(89)**	**(2,038)**	**(2,127)**
Translation adjustments	(5)	(51)	(56)
Amortization	-	(268)	(268)
Net impairment	(14)	(27)	(41)
Disposals	-	36	36
Change in scope of consolidation	-	36	36
Transfers and other	1	(2)	(1)
Amortization and impairment at December 31, 2021	**(107)**	**(2,314)**	**(2,421)**
Translation adjustments	1	(34)	(33)
Amortization	-	(286)	(286)
Net impairment	(52)	(15)	(67)
Disposals	-	174	174
Changes in scope of consolidation	-	3	3
Transfers and other	-	(2)	(2)
Amortization and impairment at December 31, 2022	**(158)**	**(2,474)**	**(2,632)**
NET CARRYING AMOUNTS AT DECEMBER 31, 2022	**2,430**	**1,803**	**4,233**
Net carrying amounts at December 31, 2021	2,286	1,811	4,097

13.1 Goodwill

At December 31, 2022, goodwill allocated to the CGUs or groups of CGUs is as follows:

(in € millions)	December 31, 2022	December 31, 2021
Passenger car tires – global brands CGU group*	429	367
Passenger car tires – regional brands CGU	172	162
Light truck and Truck tires CGU group	644	587
Mining CGU group	289	260
Two-wheel tires CGU	20	18
Beyond-road tires CGU	741	690
High-Tech Materials CGU group	135	137
Other CGUs	-	65
GOODWILL	**2,430**	**2,286**

* *Including Allopneus goodwill of €65 million (note 4.2.1) allocated to "Other CGUs" in 2021.*

Goodwill has been tested for impairment using the following two main assumptions:

- the terminal value takes into account an annual growth rate that depends on the type of business and the countries where the assets are located;
- the CGUs' future cash flows are discounted using the after-tax weighted average cost of capital (WACC) applied to after-tax cash flows. They are determined by geographical region taking into account the features of the business. The increase in the weighted average cost of capital (WACC) used for the tests at December 31, 2022 compared to December 31, 2021 was due to higher interest rates and higher risk premiums on the Group's debt.

After-tax discount rates and perpetual growth rates used in 2022 for terminal value calculations are presented in the table below:

(%)	WACC	Perpetual growth rate
Passenger car tires – global brands CGU group	8.5	1.5
Passenger car tires – regional brands CGU	8.0	1.2
Light truck and Truck tires CGU group	9.0	1.1
Mining CGU group	10.1	1.5
Two-wheel tires CGU	8.8	1.4
Beyond-road tires CGU	8.5	1.8
High-Tech Materials CGU group	9.3	2.5

A 100-basis point increase in WACC combined with a 100-basis point decrease in the perpetual growth rate applied to the groups of CGUs could lead to the recognition of an impairment loss of around €120 million, without any material impact on the interpretation of the test results.

Projected future cash flows used for impairment testing of fixed assets include investments to be made to fulfill the Group's energy transition ambitions (see note 2.6 "Climate risk"). For CGUs or groups of CGUs to which goodwill has been allocated, a simulated impairment test has been carried out by limiting estimates of future cash flows to the next 20 years based on constant cash flows after the fifth year. Under this unfavorable scenario, total future cash flows would represent €200 million less than the value of the Group's assets.

To take into account the effect of applying IFRS 16, right-of-use assets have been included in the assets to be tested, the corresponding lease liabilities have been deducted from the value of the CGUs concerned and values in use include lease payments determined in accordance with IFRS 16.

13.2 Intangible assets

In 2022, additions to intangible assets amounted to €278 million (2021: €240 million), breaking down as follows:

- software: €196 million;
- CO_2 emission allowances: €56 million;
- other: €26 million.

13.2.1 Software

The net carrying amount of software at December 31, 2022 was €692 million (2021: €671 million). Software is initially recognized at cost, including the cost of acquisition or production and other costs directly attributable to the acquisition or production of the software.

13.2.2 Brands and trademarks

At December 31, 2022, the net carrying amount of brands and trademarks in the consolidated statement of financial position was €323 million (2021: €324 million), of which €9 million related to brands and trademarks with indefinite useful lives. These amounts correspond mainly to the value of brands and trademarks recognized as part of business combinations.

13.2.3 Customer relationships

At December 31, 2022, the net carrying amount of customer relationships in the consolidated statement of financial position was €612 million (2021: €680 million). These amounts correspond primarily to the value of customer lists recognized in connection with business combinations (mainly Fenner and Camso).

13.2.4 CO_2 emission allowances

Emission allowances at December 31, 2022 totaled 2.2 million tonnes (2021: 2.3 million tonnes) and were carried in the consolidated statement of financial position for an amount of €89 million (2021: €59 million). The liability corresponding to actual emissions in 2022 amounts to 0.7 million tonnes (2021: 0.7 million tonnes) representing a value of €29 million (2021: €22 million). It will be offset by the delivery of the acquired allowances.

13.2.5 Development costs

No tire development costs were capitalized in 2021 or 2022 as the criteria for recognition as intangible assets were not met. To be recognized as an asset, the development costs incurred for a new product or a significant product renewal project must fulfill six criteria. One of these criteria requires the entity to demonstrate the existence of a market for the output of the intangible asset. The existence of a market is demonstrated only when the Group has obtained OEM approval and when the margin generated by the purchase volumes proposed by the manufacturers is in line with Group objectives. In practice, the corresponding development costs are incurred at a stage of the project which is prior to OEM approval.

NOTE 14 PROPERTY, PLANT AND EQUIPMENT AND RIGHT-OF-USE ASSETS

14.1 Property, plant and equipment (PP&E)

Changes in property, plant and equipment are as follows:

(in € millions)	Land and buildings	Plant and industrial equipment	Other equipment	Total
Gross carrying amounts at January 1, 2021	**6,706**	**20,237**	**1,466**	**28,409**
Translation adjustments	211	737	41	989
Acquisitions	263	1,148	83	1,494
Disposals	(70)	(678)	(48)	(796)
Change in scope of consolidation	(29)	(12)	-	(41)
Transfers and other	(14)	7	(5)	(12)
Gross carrying amounts at December 31, 2021	**7,067**	**21,439**	**1,537**	**30,043**
Translation adjustments	154	600	15	769
Acquisitions	377	1,415	127	1,919
Disposals	(77)	(463)	(47)	(587)
Changes in scope of consolidation	15	12	197	224
Transfers and other	41	(29)	1	13
Gross carrying amounts at December 31, 2022	**7,577**	**22,974**	**1,830**	**32,381**
Depreciation and impairment at January 1, 2021	**(3,144)**	**(13,408)**	**(1,036)**	**(17,588)**
Translation adjustments	(95)	(476)	(31)	(602)
Depreciation	(190)	(1,040)	(79)	(1,309)
Net impairment	(8)	(63)	(3)	(74)
Disposals	50	658	44	752
Change in scope of consolidation	2	4	-	6
Transfers and other	(22)	27	(2)	3
Depreciation and impairment at December 31, 2021	**(3,407)**	**(14,298)**	**(1,107)**	**(18,812)**
Translation adjustments	(59)	(376)	(20)	(455)
Depreciation	(201)	(1,132)	(85)	(1,418)
Net impairment	(14)	(16)	(6)	(36)
Disposals	56	418	38	512
Changes in scope of consolidation	(4)	(7)	(14)	(25)
Transfers and other	(14)	(6)	9	(11)
Depreciation and impairment at December 31, 2022	**(3,643)**	**(15,417)**	**(1,185)**	**(20,245)**
NET CARRYING AMOUNTS AT DECEMBER 31, 2022	**3,934**	**7,557**	**645**	**12,136**
Net carrying amounts at December 31, 2021	**3,660**	**7,141**	**430**	**11,231**

PP&E in progress amount to €2,433 million (2021: €1,611 million).

Accumulated impairment losses included in total "Depreciation and impairment" at December 31, 2022 amounted to €487 million (2021: €465 million).

14.2 Right-of-use assets

Right-of-use assets can be analyzed as follows:

(in € millions)	Right-of-use assets Land and buildings	Right-of-use assets Plant and industrial equipment	Right-of-use assets Other equipment	Total
Gross carrying amounts at January 1, 2021	**1,177**	**119**	**274**	**1,570**
Translation adjustments	50	5	10	65
New leases	116	20	31	167
Disposals	(32)	(11)	(17)	(60)
Change in scope of consolidation	(4)	1	-	(3)
Transfers and other	(21)	(2)	(3)	(26)
Gross carrying amounts at December 31, 2021	**1,286**	**132**	**295**	**1,713**
Translation adjustments	22	5	6	33
New leases	150	9	39	198
Disposals	(58)	(28)	(26)	(112)
Change in scope of consolidation	18	-	2	20
Transfers and other	(15)	(1)	(2)	(18)
Gross carrying amounts at December 31, 2022	**1,403**	**117**	**314**	**1,834**
Depreciation and impairment at January 1, 2021	**(344)**	**(40)**	**(103)**	**(487)**
Translation adjustments	(15)	(2)	(3)	(20)
Depreciation	(151)	(39)	(45)	(235)
Net impairment	(1)	-	-	(1)
Disposals	32	11	17	60
Change in scope of consolidation	-	-	-	-
Transfers and other	(5)	9	-	4
Depreciation and impairment at December 31, 2021	**(484)**	**(61)**	**(134)**	**(679)**
Translation adjustments	(5)	(2)	(2)	(9)
Depreciation	(154)	(34)	(52)	(240)
Net impairment	(4)	-	(1)	(5)
Disposals	55	28	25	108
Changes in scope of consolidation	-	-	-	-
Transfers and other	(5)	4	2	1
Depreciation and impairment at December 31, 2022	**(597)**	**(65)**	**(162)**	**(824)**
NET CARRYING AMOUNTS AT DECEMBER 31, 2022	**806**	**52**	**152**	**1,010**
Net carrying amounts at December 31, 2021	**802**	**71**	**161**	**1,034**

Some leases are recorded directly as an expense in the income statement on a straight-line basis over the life of the lease.

This is the case for:

- short-term leases, representing an expense of €51 million in 2022 (2021: €28 million);
- leases of low-value assets, representing an expense of €41 million for the year (2021: €42 million);
- variable lease payments not taken into account to determine the lease liability, representing an expense of €22 million (2021: €16 million).

Undiscounted future lease payments are analyzed by maturity in note 33.2.1 “Liquidity risk”.

NOTE 15 NON-CURRENT FINANCIAL ASSETS AND OTHER NON-CURRENT ASSETS

The carrying amount of the non-current financial assets and other non-current assets is analyzed in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Equity investments (note 15.1)	387	279
Loans and deposits (note 15.2)	229	387
Solesis preferred shares	249	247
Derivative instruments (note 16.1)	55	125
Pension plan surpluses (note 27.1)	231	332
Other	10	34
NON-CURRENT FINANCIAL ASSETS AND OTHER NON-CURRENT ASSETS	**1,161**	**1,404**

15.1 Equity investments

Unconsolidated equity investments consist primarily of a portfolio of shares in unlisted companies (note 33.4. "Classification of financial assets").

Movements in the portfolio during the year are presented in the table below:

(in € millions)	2022	2021
At January 1	**279**	**229**
Translation adjustments	5	6
Acquisitions	46	25
Disposals	-	(2)
Change in scope of consolidation	-	(10)
Fair value changes	57	31
AT DECEMBER 31	**387**	**279**

15.2 Loans and deposits

The carrying amount of loans and deposits is analyzed in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Gross loans and deposits	274	434
Impairment	(45)	(47)
TOTAL	**229**	**387**

Loans and deposits mainly include loans to companies accounted for by the equity method and various loans to customers and employees.

The decrease in loans and deposits at December 31, 2022 was mainly due to (i) the reclassification of a shareholder loan to TBC in current financial assets for €88 million, and (ii) a partial repayment of the amount held in the UK pension fund escrow account for €60 million (note 32.3.2).

NOTE 16 DERIVATIVE INSTRUMENTS

As mentioned in note 3.5 "Hedging", some derivatives, while complying with the Group's financial risk management policies, do not qualify or have not been designated as hedging instruments for hedge accounting purposes.

16.1 Derivatives recognized as assets

(in € millions)	December 31, 2022	December 31, 2021
Derivatives qualifying as fair value hedges	-	-
Derivatives qualifying as cash flow hedges		
• Currency derivatives	-	83
• Interest rate derivatives	-	-
• Other derivatives	-	-
Derivatives not qualifying for hedge accounting		
• Currency derivatives	54	16
• Interest rate derivatives	1	2
• Other derivatives[1]	-	24
Non-current derivative instruments (note 15)	**55**	**125**
Derivatives qualifying as fair value hedges	-	-
Derivatives qualifying as cash flow hedges		
• Currency derivatives	118	49
• Interest rate derivatives	-	-
• Other derivatives	-	-
Derivatives not qualifying for hedge accounting		
• Currency derivatives	33	21
• Interest rate derivatives	1	-
• Other derivatives[1]	1	27
Current derivative instruments (note 21)	**153**	**97**
TOTAL ASSETS	**208**	**222**

(1) Corresponds primarily to the financial instruments acquired as hedges of the options embedded in convertible bonds (note 26.1).

The Group grants cash collateral to cover counterparties' credit risk on derivatives with a positive fair value. Collateral received at December 31, 2022 amounted to €57 million (2021: €74 million).

16.2 Derivatives recognized in liabilities

(in € millions)	December 31, 2022	December 31, 2021
Derivatives qualifying as fair value hedges	-	-
Derivatives qualifying as cash flow hedges		
• Currency derivatives	-	-
• Interest rate derivatives	-	-
• Other derivatives	-	-
Derivatives not qualifying for hedge accounting		
• Currency derivatives	12	56
• Interest rate derivatives	2	3
• Other derivatives[1]	-	24
Non-current derivative instruments (note 26)	**14**	**83**
Derivatives qualifying as fair value hedges	-	-
Derivatives qualifying as cash flow hedges		
• Currency derivatives	-	26
• Interest rate derivatives	-	-
• Other derivatives	-	-
Derivatives not qualifying for hedge accounting		
• Currency derivatives	98	49
• Interest rate derivatives	-	-
• Other derivatives[1]	2	27
Current derivative instruments (note 26)	**100**	**102**
TOTAL LIABILITIES	**114**	**185**

(1) Corresponds to the options embedded in convertible bonds (note 26.1).

The Group holds cash collateral covering its credit risk on derivatives with a negative fair value. Collateral received at December 31, 2022 amounted to €110 million (2021: €100 million).

16.3 Contractual amounts of derivatives

The contractual amounts of derivative instruments are presented in the table below:

	December 31, 2022			December 31, 2021		
(in € millions)	Current	Non-current	Total	Current	Non-current	Total
Currency derivatives	4,588	1,754	**6,342**	5,253	1,459	**6,712**
Interest rate derivatives	94	324	**418**	-	189	**189**
Other	1,130	-	**1,130**	1,054	1,060	**2,114**
Derivatives not qualifying for hedge accounting	**5,812**	**2,078**	**7,890**	**6,307**	**2,708**	**9,015**
Interest rate derivatives	-	-	**-**	-	-	**-**
Derivatives qualifying as fair value hedges	**-**	**-**	**-**	**-**	**-**	**-**
Currency derivatives	462	-	**462**	576	435	**1,011**
Interest rate derivatives	-	-	**-**	-	-	**-**
Other	7	1	**8**	11	2	**13**
Derivatives qualifying as cash flow hedges	**469**	**1**	**470**	**587**	**437**	**1,024**
TOTAL	**6,281**	**2,079**	**8,360**	**6,894**	**3,145**	**10,039**

The "Other" derivatives not qualifying for hedge accounting include options related to convertible bonds in USD (notes 16.1, 16.2 and 26).

16.4 Hedge accounting

Summarized financial data for hedging instruments are set out in the table below:

(in € millions)	Notional amount of the hedging instrument	Carrying amount of the hedging instrument in assets/(liabilities)	Cash flow hedge reserve	Amount recognized in profit or loss	Line item affected in profit or loss
DERIVATIVES QUALIFYING AS CASH FLOW HEDGES					
Forward foreign exchange contracts on bonds denominated in foreign currencies	435	118	2	20	Cost of net debt/Other financial income and expense
Commodity price risk – forward purchase contracts	8	-	(3)	-	Operating income
Interest rate swaps	-	-	(14)	(2)	Cost of net debt
Interest component of cross currency swaps	-	-	-	-	Cost of net debt
Forward foreign exchange contracts on forecast sales	19	-	-	(1)	Operating income
Hedges of currency risk on raw materials purchases	8	-	-	1	Operating income
CURRENT AND NON-CURRENT HEDGING INSTRUMENTS	**470**	**118**	**(15)**	**18**	

Gains and losses on cash flow hedges are included in equity, under "Other reserves" (note 25 "Reserves"). These reserves are used to recognize the effective portion of derivatives that qualify for hedge accounting (note 3.5.2 "Cash flow hedges"). The gains and losses accumulated in the reserve are subsequently reclassified as part of the initial cost of a non-financial asset or transferred to the income statement. Cash flow hedge reserves correspond mainly to advance hedging of interest rate risks on the August 2018 bond issues for a negative amount of €14 million (note 26.1 "Bonds and commercial paper"). The gains and losses are reclassified to the income statement when the interest affects profit or loss.

NOTE 17 INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES

Associates and joint ventures are listed in note 36 "List of consolidated companies" to the consolidated financial statements.

17.1 Investments in equity-accounted companies

Changes in investments in equity-accounted companies are as follows:

(in € millions)	Investments in associates	Investments in joint ventures	Total investments in equity-accounted companies
At January 1, 2021	**110**	**831**	**941**
Share of profit/(loss) from equity-accounted companies	12	(29)	(17)
Impairment	(8)	(58)	(66)
Dividends	(3)	(5)	(8)
Changes in scope of consolidation/capital increases	(16)	214	198
Translation adjustments	2	56	58
Other	-	(3)	(3)
At December 31, 2021	**97**	**1,006**	**1,103**
Share of profit/(loss) from equity-accounted companies	5	(10)	(5)
Impairment	-	(14)	(14)
Dividends	(3)	(8)	(11)
Changes in scope of consolidation/capital increases	(40)	31	(9)
Translation adjustments	(2)	43	41
Other	-	(3)	(3)
AT DECEMBER 31, 2022	**57**	**1,045**	**1,102**

The main equity-accounted companies are TBC (note 17.2) and Solesis (note 17.3). All of the other companies represent less significant investments.

The effect of changes in the scope of consolidation corresponds mainly to the change to full consolidation of RLU (note 4.1.1) and the sale of ATU for €39 million.

After testing some of its investments for impairment, at December 31, 2022 the Group recognized an impairment loss of €70 million on the AddUp joint venture, of which €14 million concerned investments accounted for by the equity method and €56 million concerned loan instruments.

17.2 TBC joint venture

Summarized financial data for the TBC joint venture are set out in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Current assets	2,145	1,636
• *of which cash and cash equivalents*	*21*	*48*
Non-current assets	1,694	1,695
• *of which goodwill*	*141*	*133*
TOTAL ASSETS	**3,839**	**3,331**
Current liabilities	1,524	1,139
• *of which current financial liabilities*	*223*	*144*
Non-current liabilities	1,115	1,086
• *of which non-current financial liabilities*	*963*	*930*
Equity	1,200	1,106
TOTAL LIABILITIES AND EQUITY	**3,839**	**3,331**

(in € millions)	2022	2021
Sales	5,291	4,482
EBITDA	279	321
Interest income	4	(1)
Interest expense	(59)	(52)
Depreciation and amortization	(199)	(203)
Income tax	(2)	(22)
NET INCOME	**23**	**43**

The equity-accounted share of TBC included in the Group's consolidated income statement (including elimination of downstream transactions) is a profit of €9 million (2021: profit of €13 million).

(in € millions)	December 31, 2022	December 31, 2021
Net assets (including goodwill)	**1,200**	**1,106**
Share of net assets (including goodwill)	600	553
Elimination of profit from downstream transactions (net of tax)	(35)	(31)
CARRYING AMOUNT OF NET INTEREST IN THE JOINT VENTURE	**565**	**522**

17.3 Solesis joint venture

Summarized financial data in respect of Solesis are set out in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Current assets	59	37
• *of which cash and cash equivalents*	*8*	*4*
Non-current assets	702	649
• *of which goodwill*	*225*	*351*
• *of which cash allocated to preferred shares*	*251*	*250*
TOTAL ASSETS	**761**	**686**
Current liabilities	134	99
• *of which current financial liabilities*	*110*	*-*
Non-current liabilities	251	254
• *of which non-current financial liabilities*	*-*	*4*
• *of which preferred shares*	*251*	*250*
Equity	376	333
TOTAL LIABILITIES AND EQUITY	**761**	**686**

(in € millions)	2022	2021 (7 months)
Sales	97	47
EBITDA	25	16
Interest income	-	-
Interest expense	(6)	(3)
Depreciation and amortization	(23)	(6)
Income tax	(1)	-
NET INCOME/(LOSS)	**(5)**	**7**

The equity-accounted share of Solesis' results included in the Group's consolidated income statement was a loss of €2 million in 2022 (2021: profit of €3 million).

(in € millions)	December 31, 2022	December 31, 2021
Net assets (including goodwill)	**376**	**329**
CARRYING AMOUNT OF NET INTEREST IN THE JOINT-VENTURE	**184**	**161**

17.4 Financial information about equity-accounted companies

The financial statements of equity-accounted companies other than TBC and Solesis, which are not material taken individually, include the following amounts (information presented on a 100% basis):

(in € millions)	2022	2021
Assets	2,758	2,970
Liabilities	1,881	2,061
Sales	2,953	3,142
Net income/(loss)	(10)	(3)

17.5 Transactions with equity-accounted companies (related parties)

Transactions and balances between the Group and its associates and joint ventures are presented in the table below:

(in € millions)	2022	2021
INCOME STATEMENT		
Income for the sale of goods or supply of services	556	477
Expenses for the purchase of products or supply of services	(299)	(285)
STATEMENT OF FINANCIAL POSITION		
Financial liabilities	(1)	(5)
Trade payables	(5)	(25)
Financial assets	497	470
Accounts receivable	328	183

NOTE 18 TAXES

18.1 Deferred tax

Deferred taxes in the consolidated statement of financial position are as follows:

(in € millions)	December 31, 2022	December 31, 2021
Deferred tax assets	630	751
Deferred tax liabilities	(541)	(503)
NET DEFERRED TAX ASSET	**89**	**248**

Deferred tax assets and liabilities at the end of the period, before netting, are as follows:

(in € millions)	December 31, 2022	December 31, 2021
Employee benefit obligations	375	510
Inventories	155	110
Financial instruments	(43)	(32)
Provisions	21	17
Unused tax losses	155	154
Unused tax credits	-	-
Goodwill and intangible assets	(229)	(235)
Property, plant and equipment	(533)	(472)
Other	188	196
NET DEFERRED TAX ASSET	**89**	**248**

Deferred tax assets have been recognized for tax loss carryforwards to the extent that it is probable that future taxable profit will be available against which the unused tax losses can be utilized, taking into account the restrictions applicable in local tax jurisdictions. The probability that unused tax losses will be utilized is assessed according to the entity and its taxable profit projections. These projections are prepared using assumptions that are consistent with the short- and medium-term budgets prepared by Group entities.

The change in the net deferred tax asset over the period is as follows:

(in € millions)	2022	2021
At January 1	**248**	**304**
Translation adjustments	6	(20)
Deferred tax benefit/(expense) (note 11)	(22)	3
Tax recognized in other comprehensive income	(139)	(87)
Changes in the scope of consolidation	(3)	49
Other	(1)	(1)
AT DECEMBER 31	**89**	**248**

In 2022 and 2021, the reductions in the net deferred tax asset were due mainly to the change in taxes recorded in other comprehensive income in respect of post-employment benefit obligations.

In 2021, changes in the scope of consolidation mainly concerned the sale of part of Solesis for €48 million.

The deferred income tax recognized in other comprehensive income is as follows:

(in € millions)	December 31, 2022	December 31, 2021
Post-employment benefits	95	229
Unconsolidated equity investments and other financial instruments	(39)	(30)
Financial instruments	2	-
TOTAL DEFERRED TAX RECOGNIZED IN OTHER COMPREHENSIVE INCOME	**58**	**199**

In 2022, the change in deferred tax recognized in other comprehensive income primarily reflects decreased pension benefit obligations.

Unrecognized deferred tax assets break down as follows:

(in € millions)	December 31, 2022	December 31, 2021
Deductible temporary differences	**55**	**89**
Tax losses:		
• of which expiring in less than one year	15	7
• of which expiring in one to five years	20	25
• of which expiring in more than five years	17	17
• of which evergreen	427	471
Total tax losses	**479**	**520**
Tax credits	**9**	**10**
TOTAL UNRECOGNIZED DEFERRED TAX ASSETS	**543**	**619**

Unrecognized deferred tax assets in the amount of €543 million mainly concern the tax losses of certain companies in the United Kingdom and India that are not certain of generating sufficient taxable profit in the coming years and that are subject to certain restrictions concerning the use of the losses:

- in the United Kingdom, tax losses can be carried forward indefinitely but only 50% of the loss can be set off against taxable profit in excess of £5 million;
- in India, operating tax loss carryforwards expire after eight years but there is no limit on the remaining balance.

18.2 Current taxes

Current taxes in the consolidated statement of financial position are as follows:

(in € millions)	2022	2021
Taxes receivable (note 22)	304	324
Taxes payable (note 30)	(238)	(186)
Net total at January 1	**66**	**138**
Current tax expense (note 11)	(625)	(629)
Income tax paid	697	562
Changes in the scope of consolidation	1	1
Translation adjustments and other	13	(6)
Total changes	**86**	**(72)**
Taxes receivable (note 22)	347	304
Taxes payable (note 30)	(195)	(238)
NET TOTAL AT DECEMBER 31	**152**	**66**

NOTE 19 INVENTORIES

Inventories include the following:

(in € millions)	December 31, 2022	December 31, 2021
Raw materials and supplies	1,871	1,481
Work in progress	708	644
Finished products(1)	3,884	3,110
Total gross inventory	**6,463**	**5,235**
Impairment of raw materials and supplies	(47)	(44)
Impairment of work in progress	(2)	(2)
Impairment of finished products	(96)	(74)
Impairment	**(145)**	**(120)**
NET INVENTORIES	**6,318**	**5,115**

(1) The figures at December 31, 2021 have been restated for comparison purposes (note 2.7).

Changes in impairment losses on inventory are as follows:

(in € millions)	2022	2021
At January 1	**(120)**	**(86)**
Translation adjustments and other	(1)	(25)
Change in scope of consolidation	-	1
Impairment of inventories recognized as an expense in the period	(63)	(30)
Impairment reversals	39	20
AT DECEMBER 31	**(145)**	**(120)**

NOTE 20 TRADE RECEIVABLES

The carrying amount of trade receivables is analyzed in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Gross trade receivables	4,299	3,678
Impairment	(94)	(102)
TRADE RECEIVABLES	**4,205**	**3,576**

All trade receivables are due within 12 months.

The following table presents an aging analysis of trade receivables at December 31, 2022:

(in € millions)	Gross	Impairment	Net
Trade receivables not yet due	**3,872**	**(10)**	**3,862**
Overdue			
• by less than three months	298	(4)	294
• between three and six months	39	(4)	35
• by more than six months	90	(76)	14
Overdue trade receivables	**427**	**(84)**	**343**
TRADE RECEIVABLES	**4,299**	**(94)**	**4,205**

Movements in impairment are analyzed in the table below:

(in € millions)	2022	2021
At January 1	**(102)**	**(108)**
Translation adjustments and other	(1)	(1)
Change in scope of consolidation	-	-
Impairment of trade receivables recognized as an expense in the period	(23)	(32)
Impairment reversals	32	39
AT DECEMBER 31	**(94)**	**(102)**

Impairment reversals reflect the write-off of receivables for €29 million (2021: €17 million).

NOTE 21 CURRENT FINANCIAL ASSETS

The carrying amount of current financial assets is analyzed in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Loans and deposits	214	181
Cash management financial assets (note 26)	285	435
Derivative instruments (note 16.1)	153	97
CURRENT FINANCIAL ASSETS	**652**	**713**

Although cash management financial assets are highly liquid and have very limited exposure to interest rate risk, they do not strictly fulfill the criteria for classification as cash and cash equivalents (note 3.21 "Cash and cash equivalents"). Cash management financial assets are measured at amortized cost (note 3.18 "Non-derivative financial assets").

Loans and deposits include collateral exchanged with financial institutions of €57 million (2021: €74 million) that is not freely available.

NOTE 22 OTHER CURRENT ASSETS

The carrying amount of other current assets is analyzed in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Prepayments to suppliers	161	141
Income tax payable	347	304
Other taxes receivable	494	317
Other	324	280
Impairment	(11)	(4)
OTHER CURRENT ASSETS	**1,315**	**1,038**

Other taxes receivable mainly concern VAT.

NOTE 23 CASH AND CASH EQUIVALENTS

The carrying amount of cash and cash equivalents is analyzed in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Money-market funds	1,149	3,372
Bank deposits subject to up to a three-month notice period	991	784
Cash at bank and in hand	444	326
CASH AND CASH EQUIVALENTS	**2,584**	**4,482**

The average effective interest rate on cash and cash equivalents was 0.27% in 2022 (2021: -0.29%). Cash and cash equivalents are mainly held in euros (2022: 82%, 2021: 93%).

Cash and cash equivalents include:

- restricted cash of €152 million whose use is governed by prudential insurance regulations in Ireland (2021: €103 million);
- restricted cash of €63 million located in Russia which cannot currently be transferred out of the country due to local sanctions.

NOTE 24 SHARE CAPITAL AND SHARE PREMIUMS

Changes in share capital and share premiums are analyzed in the table below:

(in € millions)	Share capital	Share premiums	Total
At January 1, 2021	**357**	**2,746**	**3,103**
Issuance of shares upon exercise of performance share rights	-	-	-
Cancellation of shares	-	-	-
Other	-	-	-
At December 31, 2021	**357**	**2,746**	**3,103**
Issuance of shares upon exercise of performance share rights	2	74	76
Cancellation of shares	(2)	(118)	(120)
Other	-	-	-
AT DECEMBER 31, 2022	**357**	**2,702**	**3,059**

Changes in outstanding shares are analyzed in the table below:

(number of shares)	Shares issued	Treasury shares	Shares outstanding
At January 1, 2021(1)	**713,360,344**	**-**	**713,360,344**
Issuance of shares upon exercise of performance share rights	761,456	-	761,456
Share buybacks	-	(32,128)	(32,128)
Sales of treasury shares	-	32,128	32,128
Cancellation of shares	-	-	-
Other	-	-	-
At December 31, 2021(1)	**714,121,800**	**-**	**714,121,800**
Issuance of shares upon exercise of performance share rights	4,322,150	-	4,322,150
Share buybacks	-	(4,326,536)	(4,326,536)
Sales of treasury shares	-	-	-
Cancellation of shares	(4,326,536)	4,326,536	-
Other	-	-	-
AT DECEMBER 31, 2022	**714,117,414**	**-**	**714,117,414**

(1) Data for 2021 have been restated to reflect the four-for-one stock split on June 16, 2022.

Pursuant to the Annual Shareholders Meeting of May 13, 2022, for each existing share with a par value of €2.00 held on June 16, 2022, shareholders received four new shares with a par value of €0.50 in exchange, and the total number of shares making up the capital was multiplied by four.

On June 16, 2022, the 178,530,462 outstanding shares were delisted and 714,121,848 new shares were created and listed on Euronext.

The 2021 dividend paid in 2022 amounted to €1.125 as recalculated following the four-for-one stock split (2020 dividend paid in 2021: €0.575 per share). The dividend was paid in full in cash for a net amount of €803 million (2021: €410 million).

The Managing Chairman will propose that shareholders approve the payment of a 2022 dividend in 2023 of €1.25 per share.

NOTE 25 RESERVES

(in € millions)	Translation reserve	Treasury shares	Other reserves	Retained earnings	Total
At January 1, 2021	**(1,265)**	**-**	**114**	**10,681**	**9,530**
Dividends and other appropriations	-	-	-	(414)	(414)
Share-based payments – current service cost (notes 7 and 8)	-	-	-	21	21
Share buybacks	-	(1)	-	-	(1)
Sale/cancellation of shares	-	1	-	-	1
Other	-	-	-	-	-
Transactions with the shareholders of the Company	**-**	**-**	**-**	**(393)**	**(393)**
Net income attributable to the shareholders of the Company	-	-	-	1,844	1,844
Post-employment benefits	-	-	-	*351*	*351*
Tax effect – Post-employment benefits	-	-	-	*(83)*	*(83)*
Equity instruments at fair value through OCI – changes in fair value	-	-	*31*	-	*31*
Tax effect – equity instruments at fair value through OCI	-	-	*(7)*	-	*(7)*
Other	-	-	*(1)*	*1*	-
Other comprehensive income that will not be reclassified to the income statement	-	-	23	269	292
Cash flow hedges – changes in fair value	-	-	*(10)*	-	*(10)*
Currency translation differences	*617*	-	-	-	*617*
Other	*(7)*	-	*2*	*(4)*	*(9)*
Other comprehensive income/(loss) that may be reclassified to the income statement	610	-	(8)	(4)	598
Total comprehensive income/(loss)	**610**	**-**	**15**	**2,109**	**2,734**
At December 31, 2021	**(655)**	**-**	**129**	**12,397**	**11,871**
Dividends and other appropriations	-	-	-	(808)	(808)
Share-based payments – current service cost (notes 7 and 8)	-	-	-	20	20
Share buybacks	-	(120)	-	-	(120)
Sale/cancellation of shares	-	120	-	-	120
Other	-	-	-	-	-
Transactions with the shareholders of the Company	**-**	**-**	**-**	**(788)**	**(788)**
Net income attributable to the shareholders of the Company	-	-	-	2,001	2,001
Post-employment benefits	-	-	-	*672*	*672*
Tax effect – Post-employment benefits	-	-	-	*(132)*	*(132)*
Equity instruments at fair value through OCI – changes in fair value	-	-	*57*	-	*57*
Tax effect – equity instruments at fair value through OCI	-	-	*(10)*	-	*(10)*
Other	-	-	-	*4*	*4*
Other comprehensive income that will not be reclassified to the income statement	-	-	47	544	591
Cash flow hedges – changes in fair value	-	-	*(10)*	-	*(10)*
Currency translation differences	*386*	-	-	-	*386*
Other	*7*	-	*1*	*(8)*	-
Other comprehensive income/(loss) that may be reclassified to the income statement	393	-	(9)	(8)	376
Total comprehensive income/(loss)	**393**	**-**	**38**	**2,537**	**2,968**
AT DECEMBER 31, 2022	**(262)**	**-**	**167**	**14,146**	**14,051**

In March 2022, an agreement was signed with an investment services provider under which the Company undertook to buy back up to €120 million worth of Michelin shares before November 24, 2022. A total of 4,326,536 shares were finally bought back under the program at an average price per share of €27.74, representing a total investment of €120 million. All of the shares bought back under the agreement were canceled before the end of 2022.

NOTE 26 FINANCIAL LIABILITIES

The carrying amount of financial liabilities is presented in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Bonds	4,587	5,090
Loans from financial institutions and other	104	187
Derivative instruments	14	83
Non-current financial liabilities	**4,705**	**5,360**
Non-current lease liabilities	**690**	**731**
Bonds	554	823
Commercial paper	649	258
Loans from financial institutions and other	523	499
Derivative instruments	100	102
Current financial liabilities	**1,826**	**1,682**
Current lease liabilities	**233**	**229**
FINANCIAL LIABILITIES	**7,454**	**8,002**

Group net debt is analyzed in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Financial liabilities	7,454	8,002
Derivatives recognized as assets (note 16.1)	(208)	(222)
Borrowing collaterals (note 32.3.2)	(57)	(74)
Cash management financial assets (note 21)	(285)	(435)
Cash and cash equivalents (note 23)	(2,584)	(4,482)
NET DEBT	**4,320**	**2,789**

The fair value of non-current financial liabilities, calculated in accordance with note 3.6 "Fair value of financial instruments", is presented in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Bonds	3,843	5,485
Loans from financial institutions and other	104	187
Lease liabilities	610	731
Derivative instruments	14	83
FAIR VALUE OF NON-CURRENT FINANCIAL LIABILITIES	**4,571**	**6,486**

Changes in financial liabilities and derivatives are detailed by flow in the table below:

(in € millions)	At January 1, 2022	Cash flows from financial liabilities	Non-cash movements		At December 31, 2022
			Conversions	Other	
Bonds, loans from financial institutions and other	5,277	(101)	3	(488)	4,691
Lease liabilities	731	-	18	(59)	690
Derivative instruments	83	(68)	-	(1)	14
Non-current financial liabilities	**6,091**	**(169)**	**21**	**(548)**	**5,395**
Bonds, loans from financial institutions and other	1,580	(575)	27	694	1,726
Lease liabilities	229	(268)	5	267	233
Derivative instruments	102	(3)	-	1	100
Current financial liabilities	**1,911**	**(846)**	**32**	**962**	**2,059**
TOTAL FINANCIAL LIABILITIES	**8,002**	**(1,015)**	**53**	**414**	**7,454**
Derivatives recognized as assets	(222)	64	-	(50)	(208)
Net impact on the consolidated statement of cash flows		**(951)**			

26.1 Bonds and commercial paper

The table below provides detailed information about the bonds and commercial paper issued by the Group:

	December 31, 2022		December 31, 2021	
(in € millions)	Current	Non-current	Current	Non-current
Bonds repayable by Compagnie Générale des Établissements Michelin • nominal amount of €302 million • issued in September 2015 and September 2016 and due in September 2045 • nominal interest rate of 3.25% • effective interest rate of 3.02%	-	314	-	314
Bonds repayable by Compagnie Générale des Établissements Michelin • nominal amount of €500 million • issued in October 2020 and due in November 2040 • nominal interest rate of 0.625% • effective interest rate of 0.68%	-	496	-	496
Bonds repayable by Compagnie Générale des Établissements Michelin • nominal amount of €750 million • issued in August 2018 and due in September 2038 • nominal interest rate of 2.50% • effective interest rate of 2.56%	-	744	-	744
Bonds repayable by Compagnie Générale des Établissements Michelin • nominal amount of €500 million • issued in October 2020 and due in November 2032 • nominal interest rate of 0.25% • effective interest rate of 0.32%	-	496	-	496
Bonds repayable by Compagnie Générale des Établissements Michelin • nominal amount of €1,000 million • issued in August 2018 and due in September 2030 • nominal interest rate of 1.75% • effective interest rate of 1.84% (2.00% after hedging)	-	993	-	993
Bonds repayable by Compagnie Générale des Établissements Michelin • nominal amount of €500 million • issued in October 2020 and due in November 2028 • nominal interest rate of 0.00% • effective interest rate of 0.06%	-	498	-	498
Bonds repayable by Compagnie Générale des Établissements Michelin • nominal amount of €300 million • issued in May 2015 and due in May 2027 • nominal interest rate of 1.75% • effective interest rate of 1.86% (1.80% after hedging)	-	299	-	298
Bonds repayable by Compagnie Générale des Établissements Michelin • nominal amount of €750 million • issued in August 2018 and due in September 2025 • nominal interest rate of 0.875% • effective interest rate of 1.04% (1.17% after hedging)	-	747	-	745
Debt component of convertible bonds repayable by Compagnie Générale des Établissements Michelin • nominal amount of $600 million • issued in January 2018 and due in November 2023 • nominal interest rate of 0% • effective interest rate of 2.50% (0.16% after hedging) • conversion price at December 31, 2022 of €42.0367	554	-	-	506

	December 31, 2022		December 31, 2021	
(in € millions)	Current	Non-current	Current	Non-current
Bonds repayable by Compagnie Générale des Établissements Michelin				
• nominal amount of €300 million				
• issued in May 2015 and due in May 2022				
• nominal interest rate of 1.125%				
• effective interest rate of 1.17%				
• repaid on March 8, 2022	-	-	300	-
Debt component of convertible bonds repayable by Compagnie Générale des Établissements Michelin				
• nominal amount of $600 million				
• issued in January 2017 ($500 million) and April 2017 ($100 million) and due in January 2022 (note 26.1.1 and note 35)				
• nominal interest rate of 0%				
• effective interest rate of 1.98% (-0.38% after hedging)				
• conversion price at December 31, 2021 of €133.359				
• repaid at maturity on January 10, 2022 (note 26.1.1)	-	-	523	-
Commercial paper repayable by Compagnie Générale des Établissements Michelin				-
• in USD, euro-equivalent nominal amount: €71 million (2021: €22 million)				
• effective interest rate of 5.02% at December 31, 2022				
• in €, nominal amount €580 million (2021: €236 million)				
• effective interest rate of 1.80% at December 31, 2022	649	-	258	-
TOTAL	**1,203**	**4,587**	**1,081**	**5,090**

At December 31, 2022, the weighted average nominal interest rate for bonds and commercial paper is 1.54% (1.38% after hedging).

The €269 million decrease in the current portion of bond debt primarily reflects:

- the redemption at maturity of the convertible bonds due in January 2022 for €523 million;
- the early repayment in March 2022 of the bonds due May 2022, for €300 million.
- the reclassification from long- to short-term of the convertible bonds due in November 2023, for €554 million.

The exercise price of the convertible bonds due November 2023 has been adjusted to take into account the stock split (note 24).

26.2 Loans from financial institutions and other

Loans from financial institutions and other consist mainly of drawdowns on the Group's credit lines.

At December 31, 2022, loans from financial institutions totaled €627 million (2021: €686 million). Most of the loans were denominated in EUR, THB and USD and most were at variable interest rates.

The contractual re-pricing of the interest rates of these loans is generally less than six months.

NOTE 27 PROVISIONS FOR EMPLOYEE BENEFIT OBLIGATIONS

In accordance with the laws and regulations applicable in each country, and in application of its social responsibility policy, the Group takes part mainly in pension, death and disability, medical insurance and end-of-service benefit plans.

They are either defined benefit plans or defined contribution plans.

Since 2003, the Group has closed its defined benefit plans to new entrants and, in some cases, to future accruals, in order to reduce the risk on the Group's consolidated statement of financial position. New defined contribution plans have correspondingly been put in place or existing ones improved.

The Group has a governance body, the Global Employee Benefit Board, that monitors benefits. Its role is to define Group policies on employee benefits and ensure that local benefit programs comply with them (approval of amendments, introduction of new benefits, etc.). At the same time, it monitors asset returns and benchmarks, as well as the de-risking policies put in place by local boards or committees, and proposes an audit plan. The Committee is assisted by two teams, the Global Benefits Policy Team composed of members from the accounting, finance and human resources departments and the Global Benefits Investment Team composed of the chairs of the investment committees or Chief Investment Officers of the main funded pension plans and Group experts. In countries with substantial benefit obligations, a similar organization exists.

27.1 Defined benefit plans

The Group's defined benefit plans are retirement plans and retiree healthcare plans, the vast majority of which are now closed to new entrants, and in some cases to future accruals, as well as some minor plans such as long-service awards or end-of-service benefits.

Projected benefit obligations are measured with the assistance of independent actuaries who help the Group to determine demographic and financial assumptions according to a rigorous process.

The financial position of the main defined benefit plans is summarized below:

(in € millions)	Pension plans	Other plans	December 31, 2022	December 31, 2021
Present value of fully or partly funded obligations	5,508	25	5,533	7,578
Fair value of plan assets	(5,374)	(20)	(5,394)	(7,516)
Funded status deficit/(surplus)	**134**	**5**	**139**	**62**
Present value of unfunded obligations	791	1,316	2,107	2,871
Unrecognized assets due to the effect of the asset ceiling	80	4	84	97
NET DEFINED BENEFIT OBLIGATION	**1,005**	**1,325**	**2,330**	**3,030**
Amounts recognized in the statement of financial position:				
• As assets under non-current financial assets and other non-current assets (note 15)	(231)	-	(231)	(332)
• As liabilities under employee benefit obligations	1,236	1,325	2,561	3,362
NET LIABILITY	**1,005**	**1,325**	**2,330**	**3,030**

At December 31, 2022, the projected defined benefit obligation comprised €2,233 million for active members (current employees), €863 million for members who have deferred their vested benefits and €4,544 million for retired members (2021: respectively €3,389 million, €1,299 million and €5,762 million).

Most pension plans are grandfathered, but most other plans are not.

The mortality tables used are official national tables that may be adapted to better reflect the populations concerned.

	December 31, 2022				December 31, 2021			
Main life expectancies by country:	**United States**	**Canada**	**United Kingdom**	**Germany**	**United States**	**Canada**	**United Kingdom**	**Germany**
Life expectancy for males at 65 at the end of the reporting period	18.4	21.8	21.1	20.2	18.4	21.7	21.1	20.2
Life expectancy for males at 65 (15 years after the end of the reporting period)	19.4	22.9	21.7	22.3	19.3	22.8	21.7	22.3
Life expectancy for females at 65 at the end of the reporting period	20.4	24.3	23.9	23.7	20.3	24.2	23.9	23.7
Life expectancy for females at 65 (15 years after the end of the reporting period)	21.4	25.3	25.0	25.4	21.3	25.2	25.0	25.4

The movements in net defined benefit obligations recognized in the consolidated statement of financial position are shown below:

(in € millions)	2022 Pension plans	2022 Other plans	2022 Total, defined benefit plans	2021 Pension plans	2021 Other plans	2021 Total, defined benefit plans
AT JANUARY 1	**1,256**	**1,774**	**3,030**	**1,626**	**1,863**	**3,489**
Contributions paid to the funds	**(13)**	**(6)**	**(19)**	**(19)**	**-**	**(19)**
Benefits paid to the beneficiaries	**(38)**	**(64)**	**(102)**	**(48)**	**(71)**	**(119)**
Other movements	**-**	**2**	**2**	**-**	**(3)**	**(3)**
ITEMS RECOGNIZED IN OPERATING INCOME						
Current service cost	*32*	*75*	*107*	*34*	*77*	*111*
Actuarial (gains) or losses	*-*	*(8)*	*(8)*	*-*	*(8)*	*(8)*
Plan modifications, curtailments or settlements	*(61)*	*(55)*	*(116)*	*(74)*	*(96)*	*(170)*
Other items	*9*	*-*	*9*	*8*	*(1)*	*7*
Total recognized in operating income	**(20)**	**12**	**(8)**	**(32)**	**(28)**	**(60)**
ITEMS RECOGNIZED OUTSIDE OPERATING INCOME						
Net interest on employee benefits	**9**	**30**	**39**	**12**	**29**	**41**
ITEMS RECOGNIZED IN OTHER COMPREHENSIVE INCOME						
Translation adjustments	**21**	**39**	**60**	**(4)**	**56**	**52**
ACTUARIAL (GAINS) OR LOSSES						
• *Due to changes in demographic assumptions:*						
- *Due to changes in assumptions*	*(10)*	*18*	*8*	*(11)*	*(14)*	*(25)*
- *Due to experience adjustments*	*8*	*(19)*	*(11)*	*(30)*	*(48)*	*(78)*
• *Due to changes in financial assumptions:*						
- *Due to changes in assumptions*	*(2,256)*	*(460)*	*(2,716)*	*(230)*	*(29)*	*(259)*
- *Due to experience adjustments*	*2,069*	*(5)*	*2,064*	*(46)*	*19*	*(27)*
Total actuarial (gains) or losses	**(189)**	**(466)**	**(655)**	**(317)**	**(72)**	**(389)**
Unrecognized assets due to the effect of the asset ceiling	**(21)**	**4**	**(17)**	**38**	**-**	**38**
AT DECEMBER 31	**1,005**	**1,325**	**2,330**	**1,256**	**1,774**	**3,030**

The Group's main pension plans are as follows:

United States

The defined benefit plan in the United States is the Michelin Retirement Plan (MRP).

The plan was closed to new entrants as of January 1, 2004. Accruals were frozen under the plan as of December 31, 2016. All employees are enrolled in a defined contribution plan.

The plan provides for a guaranteed monthly annuity at retirement based on a set formula that takes into consideration the years of plan membership and average pensionable earnings. Only employees who have voluntarily joined the defined contribution plan may receive a lump sum payment.

The plan includes a cost-of-living adjustment clause applicable to the pensions of employees hired before January 1, 1991.

The plan is funded solely by employer contributions.

Canada

There is one major defined benefit plan in Canada, the Pension Plan for the Employees of Michelin North America (Canada) Inc. and Participating Employers (MR Plan). Other minor defined benefit plans, which are closed to new entrants, are valued but not detailed further.

The MR Plan was closed to new entrants as from January 1, 2005. Accruals for most of the participants were frozen under the plan as of December 31, 2015. All employees are enrolled in a defined contribution plan.

The plan provides for a guaranteed monthly annuity at retirement based on a set formula that takes into consideration the years of plan membership and total pensionable earnings.

The plan includes an indexation clause applicable to the benefits, based on the increase in the Consumer Price Index less a deduction.

The plan is funded solely by employer contributions.

United Kingdom

The defined benefit retirement plan in the UK is the Michelin Pension and Life Assurance Plan.

This plan was closed to new entrants as from March 31, 2005. It was closed to all future accruals as of January 1, 2009 and has been replaced by a defined contribution plan.

Accruals up to December 31, 2008 are frozen but pensions are still linked to the average final salary at retirement.

The amount of the annual pension is based on the employee's pensionable earnings. Most employees opt to receive the maximum amount allowed by tax legislation in the form of a lump sum.

The amount of the pension benefit is indexed to a capped inflation rate for members who did not choose the pension increase exchange option.

The plan is funded solely by employer contributions.

Germany

The main defined benefit retirement plan in Germany is the "Versorgungsordnung 1979" (VO 1979).

The plan was closed to new entrants as from January 1, 2000. Since this date, new entrants have been enrolled in defined contribution plans.

The plan provides for a lifetime monthly annuity which is based on the employee's pensionable earnings.

There is a legal obligation to adjust the pension annuity every three years for inflation up to the average increase in the employees' salaries.

France

The main defined benefit pension plan is "*Régime de retraite supplémentaire* MFPM". Benefits are payable under this plan only if the beneficiary is still a Group employee or officer on retirement.

Benefits have been reduced gradually since January 1, 2013. In accordance with government order 201-697 dated July 3, 2019, this plan was closed to new members on July 3, 2019 and the vesting period was frozen at December 31, 2019. The plan has now been replaced by defined contribution plans.

The Group's other main defined benefit plans are as follows:

United States

Some retirees and their dependents are also covered by medical insurance.

For the most part, the retirees concerned were hired before January 1, 2004. This plan is not pre-funded.

Canada

Some retirees and their dependents are also covered by medical insurance.

This plan was closed to new entrants as from January 1, 2005. This plan is not pre-funded.

France

The main plan is a mandatory rubber division end-of-service benefit plan.

The plan provides for the payment of a lump sum to employees who are present at their retirement date. The normal retirement age is set at 65. The amount of the lump sum corresponds to a number of months of salary based on years of service at the time of retirement. This plan is not pre-funded.

The following table analyzes changes in the financial position of the Group's defined benefit plans:

	2022					2021				
	Pension plans					Pension plans				
(in € millions)	United Kingdom (UK)	Europe excluding UK	North America and Other	Other defined benefit plans	Total	United Kingdom (UK)	Europe excluding UK	North America and Other	Other defined benefit plans	Total
Obligations at the beginning of the year	**3,044**	**1,630**	**4,001**	**1,774**	**10,449**	**2,966**	**1,966**	**4,014**	**1,863**	**10,809**
Translation adjustments	(109)	3	213	39	**146**	234	4	325	56	**619**
Change in scope of consolidation	-	-	2	-	**2**	-	-	-	(3)	**(3)**
Current service cost	1	28	3	75	**107**	1	31	2	77	**111**
Interest expense	50	13	117	30	**210**	44	12	101	29	**186**
Administrative costs and other	3	-	6		**9**	4	1	3	(1)	**7**
Plan modifications, curtailments or settlements	-	(61)	-	(55)	**(116)**	-	(74)	-	(96)	**(170)**
Benefits paid during the year	(135)	(47)	(303)	(70)	**(555)**	(140)	(59)	(272)	(71)	**(542)**
Other items*	1	(24)	3	24	**4**	-	(211)	1	-	**(210)**
Actuarial (gains) or losses	(1,012)	(458)	(670)	(476)	**(2,616)**	(65)	(40)	(173)	(80)	**(358)**
Obligations at the end of the year (A)	**1,843**	**1,084**	**3,372**	**1,341**	**7,640**	**3,044**	**1,630**	**4,001**	**1,774**	**10,449**
Fair value of plan assets at the beginning of the year	**3,376**	**183**	**3,957**	**-**	**7,516**	**3,177**	**384**	**3,812**	**-**	**7,373**
Translation adjustments	(122)	2	207	-	**87**	253	1	318	-	**572**
Change in scope of consolidation	-	-	-	-	**-**	-	-	-	-	**-**
Interest income	55	1	117	-	**173**	47	3	95	-	**145**
Contributions paid to the funds	6	6	1	6	**19**	9	10	-	-	**19**
Benefits paid by the plans	(135)	(12)	(300)	(6)	**(453)**	(140)	(13)	(270)	-	**(423)**
Other items*	1	(21)	3	22	**5**	-	(210)	1	-	**(209)**
Actuarial (gains) or losses	(1,107)	(27)	(817)	(2)	**(1,953)**	30	8	1	-	**39**
Fair value of plan assets at the end of the year (B)	**2,074**	**132**	**3,168**	**20**	**5,394**	**3,376**	**183**	**3,957**	**-**	**7,516**
Deficit/(surplus) (A-B)	**(231)**	**952**	**204**	**1,321**	**2,246**	**(332)**	**1,447**	**44**	**1,774**	**2,933**
Deferred items at the beginning of the year	-	-	(97)	-	**(97)**	-	-	(53)	-	**(53)**
Translation adjustments	-	-	(1)	-	**(1)**	-	-	(5)	-	**(5)**
Unrecognized assets	-	-	18	(4)	**14**	-	-	(39)	-	**(39)**
Deferred items at the end of the year	**-**	**-**	**(80)**	**(4)**	**(84)**	**-**	**-**	**(97)**	**-**	**(97)**
NET LIABILITY/(ASSET) AT THE END OF THE YEAR	**(231)**	**952**	**284**	**1,325**	**2,330**	**(332)**	**1,447**	**141**	**1,774**	**3,030**

* *The 2021 amount includes €212 million related to the partial settlement of the "Régime de retraite supplémentaire MFPM" in France following the transfer of the benefit obligation for retired employees and the corresponding plan assets to an external fund as of January 1, 2021.*

In France, the voluntary early retirement and outplacement measures provided for in the third Collective Settlement Agreement (note 9.2) had the effect of reducing the Group's pension obligations by €62 million and its other post-employment benefit obligations by €56 million. A provision for reorganizations and adaptation of activities was recorded at December 31, 2022 (note 29).

For Canadian pension plans, the Group does not have any rights to a refund of the plan surplus. The available economic benefits are measured as the present value of the future service cost.

These pension plans are subject to a minimum funding requirement. The surplus recognized as an asset is the sum of:

- any prepaid amount that would reduce the future minimum funding requirement; and
- the estimated future service cost in each period less the estimated minimum funding requirement contributions that would be required for future service.

Any amount exceeding this limit is immediately recognized within other comprehensive income.

In 2022, an amount of €13 million was recognized on application of the asset ceiling.

The main actuarial weighted average assumptions used to measure projected benefit obligations are as follows:

	December 31, 2022			December 31, 2021		
	United Kingdom (UK)	Europe excluding UK	North America	United Kingdom (UK)	Europe excluding UK	North America
Discount rate	4.95%	3.66%	5.01%	1.70%	1.17%	2.81%
Inflation rate	3.35%	2.22%	2.37%	3.30%	1.87%	2.00%
Rate of salary increases*	3.43%	3.10%	3.50%	3.37%	3.02%	3.50%
Weighted average duration of the defined benefit obligation	12.8	13.5	9.7	16.5	14.8	11.1

* *North America: only the Canadian pension plan is concerned by this assumption, for a negligible group of members.*

Assumptions concerning healthcare cost trends are as follows:

	December 31, 2022		December 31, 2021	
	United States	Canada	United States	Canada
Expected growth in healthcare costs in the first year	7.85%	4.69%	8.25%	4.47%
Minimum long-term rate of annual growth in healthcare costs	4.50%	4.05%	4.50%	4.05%
Year in which the minimum growth rate will be achieved	2030	2040	2030	2040

Regarding the sensitivity of the fair market value of plan assets due to interest rate movements, it is considered that the entire yield curve moves up or down by 0.5 point and that only the values of the bonds are impacted, with the values of all other assets remaining unchanged. The level of sensitivity indicated corresponds to the change in the total value of the portfolio due to the change in interest rates.

A 0.5-point change in these rates compared with those used for 2022, all else being equal, would have the following effect:

(in € millions)	0.5-point increase	0.5-point decrease
Discount rate on the defined benefit obligation (DBO)	(403)	431
Discount rate on the aggregate of current service cost and interest cost on the obligation	11	(14)
Inflation rate on the defined benefit obligation (DBO)	251	(237)
Inflation rate on the aggregate of current service cost and interest cost on the obligation	16	(14)
Salary increase rate on the defined benefit obligation (DBO)	85	(78)
Salary increase rate on the aggregate of current service cost and interest cost on the obligation	8	(7)
Healthcare cost trend rate on the healthcare defined benefit obligation	6	(5)
Healthcare cost trend rate on the aggregate of the current service cost and interest cost on the healthcare plan obligation	-	-
Interest rates on the fair market value of plan assets	(260)	279

The asset allocation of fully and partly funded pension plans is as follows:

	December 31, 2022					December 31, 2021				
	Canada	United States	United Kingdom	Other	Total	Canada	United States	United Kingdom	Other	Total
Equities	4%	6%	0%	0%	**3%**	8%	11%	1%	0%	**6%**
Government bonds	64%	34%	32%	19%	**38%**	67%	25%	32%	14%	**35%**
Investment-grade corporate bonds	12%	41%	24%	0%	**28%**	13%	43%	19%	0%	**26%**
Other bonds, credit and cash	11%	5%	24%	2%	**13%**	8%	4%	29%	2%	**15%**
Funds managed by insurance companies	0%	0%	0%	79%	**3%**	0%	0%	0%	84%	**2%**
Real assets	7%	8%	5%	0%	**7%**	2%	8%	5%	0%	**6%**
Alternatives	2%	6%	15%	0%	**8%**	2%	9%	14%	0%	**10%**
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Duration in years of bonds and cash	**11.6**	**11.7**	**15.9**	**10.1**	**13.3**	**13.7**	**13.3**	**19.8**	**11.2**	**16.4**

In the above allocation, "Equities" may include local and global listed equities and private equities; "Alternatives" may include hedge funds, mezzanine and distressed private debts; "Government bonds" may include government-like bonds as well as derivatives used to hedge interest rates and/or inflation; "Investment grade corporate bonds" correspond solely to those corporate bonds also used to hedge interest rates; "Other bonds, credit and cash" includes all other bonds such as high yield, senior private debt, etc. and cash; "Real assets" may include equity investments in real estate or infrastructure; "Funds managed by insurance companies" may include multi-employer funds. Each manager's assets are assigned in their entirety to one of the available categories which represents its main investment/mandate.

An internal group of experts, composed of the chairs or Chief Investment Officers of the main investment committees and Group specialists, has issued investment guidelines for the local investment committees presenting investment best practices. In particular, the guidelines state that direct investments should not be made in Michelin securities or properties used by the Group. Fund managers are not subject to such restrictions. The Group has not invested material amounts in its own securities. Michelin does not occupy or use any of the real estate assets included in the various portfolios. The Group is not in possession of comprehensive information on the underlying assets held in insurance funds or alternative investments.

In most countries, assets are managed by local independent boards, in accordance with local pension laws. The boards are required by their bylaws as well as by law to act in the best interest of the fund and all relevant stakeholders, i.e., current and future beneficiaries as well as employers.

Asset allocation analyses are performed periodically, generally every three to five years, by an independent fiduciary body (Investment Board, Board of Trustees) based on recommendations made by independent advisors (actuaries, consultants, banks or investment management firms). The asset allocation takes into account the structure of employee-related liabilities and their terms. In the event of a sharp increase in the funding ratio, an asset allocation analysis should be performed to ensure the target allocation is still appropriate.

Government and investment-grade corporate bonds are used to hedge the interest rate risk as well as, in some cases, the credit spread and inflation risks. The larger plans also use completion managers to implement custom solutions in order to hedge key rates in accordance with the policy set by each pension fund. These assets are in the "Government bonds" category.

Foreign exchange risks may be hedged when the exposure to a foreign currency is considered to be non-negligible.

The liability-driven investment strategy used by the United Kingdom pension plans was disrupted by the interest rate volatility triggered by the publication of the Government's mini-budget in September, leading the Michelin Pensions Trust Ltd to temporarily scale back its interest rate hedging program for a few weeks. The situation returned to normal in early December. The actuarial loss recorded in "Other comprehensive income" was limited.

Group contributions to pension plans and benefit payments made by these plans in 2022 and to be made over the following ten years are as follows:

	Pension plans			Other plans			
(in € millions)	United Kingdom (UK)	Europe excluding UK	North America and Others*	United Kingdom (UK)	Europe excluding UK	North America and Others*	Group total
CONTRIBUTIONS PAID AND BENEFITS PAID DIRECTLY BY THE GROUP							
2022	6	41	4	-	10	60	121
ESTIMATES OF CONTRIBUTIONS TO BE PAID AND BENEFITS TO BE PAID DIRECTLY BY THE GROUP							
2023	3	53	3	-	15	49	123
2024	3	54	3	-	9	49	118
2025	3	67	2	-	20	51	143
2026	3	76	19	-	27	49	174
2027	3	82	64	-	49	50	248
2028-2032	15	380	307	1	238	226	1,167

* *Payments for "Other" are insignificant.*

27.2 Defined contribution plans

Some companies support their employees in building up retirement savings through defined contribution plans.

In 2022, the contributions paid to defined contribution plans and expensed amounted to €253 million (2021: €218 million).

These plans are mainly found in the United States, Canada, the United Kingdom and France.

United States

The defined contribution plans in the United States include the Michelin Retirement Account Plan (MRAP) and various 401(k) plans. The 401(k) plans are voluntary and are funded by employee contributions with employer matching contributions.

Canada

The defined contribution plans in Canada include the Defined Contribution Plan for the Employees of Michelin North America (Canada) Inc. as well as a registered retirement savings plan (RRSP). The defined contribution plan is funded by employer contributions and optional employee contributions with employer matching.

United Kingdom

The main defined contribution pension plan in the United Kingdom is the *Michelin Pension and Life Assurance Plan, DC section*.

The plan is funded by employee and employer contributions. Employees may also make optional contributions to the plan, which will be partly matched by the Group.

France

There are two defined contribution pension schemes in France for the majority of employees: PERO (former Article 83) and PERCOL (former PERCO). The PERO is a mandatory retirement savings plan that is funded by contributions from employees and the employer. The PERCOL is a voluntary retirement savings plan. Employee contributions to the plan are matched by capped employer contributions.

NOTE 28 SHARE-BASED PAYMENTS

28.1 Share grants and performance share plans

Changes in the number of share grants and performance share rights are as follows:

	2022	2021(1)
	Number of share grants or performance share rights outstanding	Number of share grants or performance share rights outstanding
At January 1	**5,214,472**	**5,093,600**
Granted	1,899,470	1,278,488
Forfeited	(714,388)	(433,712)
Shares delivered	(450,060)	(723,904)
AT DECEMBER 31	**5,949,494**	**5,214,472**

(1) Data have been restated to reflect the four-for-one stock split as of June 16, 2022.

Excellence Plan

In November 2022, 1,899,470 rights to performance shares were granted to Group employees and the Managers. The rights are subject to a four-year vesting period ending in November 2026 without any lock-up period. The shares will vest at the end of this period if the performance objectives are met (stock market performance, environmental performance of manufacturing operations, employee engagement rate, sales growth and ROCE). The fair value of each performance share right is estimated at €16.14. This fair value is based on the share price at the grant date, less the present value of expected dividends that will not be received by grantees during the vesting period. The estimated value of the stock market performance condition is deducted from the grant-date fair value of the performance share rights based on the probability of this condition being met. The €23 million estimated total cost of the 2022 Excellence plan will be recognized over the vesting period.

The share grants and performance share plans have the following characteristics:

Grant date	Vesting date		Fair value at grant date(1)		December 31, 2022	December 31, 2021(1)
					Number of share grants or performance share rights outstanding	Number of share grants or performance share rights outstanding
	France	Other countries	France	Other countries		
2018	2022	2022	11.98	11.98	-	155,284
2019	2023	2023	15.50	15.50	852,764	1,479,212
2020	2024	2024	18.91	18.91	1,939,884	1,983,712
2020	2022	N/A	25.39	N/A	-	319,952
2021	2025	2025	27.40	27.40	1,257,376	1,276,312
2022	2026	2026	16.14	16.14	1,899,470	-
NUMBER OF SHARE GRANTS OR PERFORMANCE SHARE RIGHTS OUTSTANDING					**5,949,494**	**5,214,472**

(1) Data have been restated to reflect the four-for-one stock split as of June 16, 2022.

The expense recognized in 2022 for performance share plans amounts to €20 million (2021: €21 million). It is included in "Segment other income and expenses".

France Plan

In November 2022, the November 2020 France plan expired; 300,784 shares were allocated to employees of the Group's French companies.

28.2 Employee share ownership plans

In 2022, the Group launched a share offer for all its employees located in countries where the legal and tax requirements were met. This share ownership plan (Bib'Action), carried out under the Company savings plan (*Plan d'Épargne Groupe*), is a standard plan allowing employees to invest in Michelin shares at a discounted price. The shares acquired by the employees participating in the plan cannot be sold or transferred during a five-year period. The purchase price was set at €19.96 per share, representing a 20% discount on the reference price of €24.96 corresponding to the average of the opening prices for Michelin shares over the 20 trading days preceding the pricing date. The employee's purchase was supplemented by a company contribution, increasing the number of shares received, capped at 22 shares out of the first 50 purchased by the employee. 3,872,090 shares were purchased during this share offer. The total expense recognized in the income statement by the Group in relation to this plan amounted to €21 million, after deducting the effect of the five-year lock-up. The main features of the plan and the assumptions used to determine the final cost were as follows:

Life of the plan	5 years
Number of shares purchased	3,872,090
Reference price *(in €)*	24.96
Purchase price for employees *(in €)*	19.96
Five-year risk-free interest rate[1]	3.42%
Five-year market participant rate[2]	5.38%
Recognized cost *(in € per share)*	5.88

(1) The risk-free interest rate is based on the yield on French government bonds with an equivalent maturity.

(2) The market participant rate is based on the cost for market participants of 0 to 5-year loans published by the European Central Bank.

NOTE 29 PROVISIONS AND OTHER NON-CURRENT LIABILITIES

Provisions and other non-current liabilities amount to €695 million (2021: €759 million) and include provisions for reorganizations and adaptation of activities, provisions for claims and litigation, warranties and other contingencies, and contract liabilities as described in note 3.8 "Revenue recognition".

29.1 Changes in provisions (current and non-current)

Changes in provisions during the period are presented below:

(in € millions)	Reorganizations and adaptation of activities	Litigation, warranties and other provisions	Total
At January 1, 2022	**302**	**398**	**700**
Additional provisions	193	176	369
Provisions utilized during the period	(174)	(95)	(269)
Unused provisions reversed during the year	(3)	(26)	(29)
Translation adjustments	(2)	6	4
Other effects	(2)	(15)	(17)
AT DECEMBER 31, 2022	**314**	**444**	**758**
Of which short-term portion (note 30)	196	126	322

29.2 Reorganizations and adaptation of activities

At December 31, the remaining provisions for reorganizations and adaptation of activities relate to the following countries:

(in € millions)	December 31, 2022	December 31, 2021
France(1)	231	198
Germany	27	57
United Kingdom	32	27
Other countries	24	20
TOTAL	**314**	**302**

(1) *The total includes the provision set aside in 2022 for phase 3 of the simplification and competitiveness plan (note 9.2), as well as the balance of provisions set aside in 2021 for phases 1 and 2.*

29.3 Provisions for claims and litigation, warranties and other provisions

Provisions at December 31 concern the following risks:

(in € millions)	December 31, 2022	December 31, 2021
Provisions for claims and litigation	87	102
Provisions for product warranties (note 3.8)	76	69
Provisions for product liability claims	68	74
Other provisions for contingencies	213	153
TOTAL	**444**	**398**

Provisions for claims and litigation mainly concern litigation with URSSAF dating back several years for €27 million (2021: €50 million).

The increase in "Other provisions for contingencies" was mainly due to the suspension of the Group's manufacturing operations in Russia (note 2.5).

NOTE 30 PROVISIONS AND OTHER CURRENT LIABILITIES

The carrying amount of other current liabilities is presented in the table below:

(in € millions)	December 31, 2022	December 31, 2021
Customers – Deferred rebates and other liabilities[1]	763	835
Employee benefit obligations	752	871
Payroll tax liabilities	339	349
Provisions for reorganizations and adaptation of activities	196	193
Income tax payable	195	238
Other taxes	265	245
Other	458	429
PROVISIONS AND OTHER CURRENT LIABILITIES	**2,968**	**3,160**

(1) The figures at December 31, 2021 have been restated for comparison purposes (note 2.7).

NOTE 31 NOTES TO THE STATEMENT OF CASH FLOWS

Cash flows are presented in detail in the table below:

(in € millions)	2022	2021
Investment grants recognized in profit or loss	(12)	(12)
Change in employee benefit obligations	(28)	(42)
Change in litigation and other provisions	(13)	29
Restructuring costs	(181)	(214)
Other	-	38
Other operating income and expenses (cash) and changes in provisions	**(234)**	**(201)**
Interest and other financial expenses paid	(378)	(227)
Interest and other financial income received	37	7
Dividends received	18	13
Interest and other financial income and expenses received and paid, net	**(323)**	**(207)**
Change in inventories	(1,055)	(1,106)
Change in trade receivables and advances	(746)	(370)
Change in trade payables and advances	48	527
Change in trade payables under reverse factoring agreements	(39)	120
Change in other receivables and payables	(285)	5
Change in working capital, net of impairment	**(2,077)**	**(824)**
Purchases of intangible assets (note 13)	(222)	(211)
Purchases of PP&E (note 14)	(1,919)	(1,494)
Government grants received	6	9
Change in capital expenditure payables	94	217
Purchases of intangible assets and PP&E	**(2,041)**	**(1,479)**
Increase in other non-current financial assets	(26)	(48)
Decrease in other non-current financial assets	14	79
Net cash flows from cash management financial assets	150	(150)
Net cash flows from borrowing collaterals	17	(51)
Net cash flows from other current financial assets	(15)	(33)
Cash flows relating to other financial assets	**140**	**(203)**
Increase in non-current financial liabilities	67	44
Decrease in non-current financial liabilities	(168)	(774)
Repayment of lease liabilities	(268)	(244)
Net cash flows from current financial liabilities	(575)	(90)
Derivatives	(7)	21
Cash flows relating to financial liabilities	**(951)**	**(1,043)**
Details of non-cash transactions:		
• New leases (note 14)	198	167
• New emission allowances granted	13	13
• Change in payment commitments for non-consolidated equity investments	28	-

NOTE 32 COMMITMENTS AND CONTINGENCIES

32.1 Commitments

32.1.1 Capital expenditure commitments

Capital expenditure on the main projects which were contracted but not delivered before December 31, 2022 amounts to €381 million (of which €304 million is likely to be delivered in 2023).

32.1.2 Other commitments

The Group has many purchase commitments for goods and services. These commitments are in line with the level of activity expected in the first half of 2023. They are entered into on arm's length terms in the normal course of business.

32.2 Contingencies

32.2.1 Michelin Pension Trust Ltd UK

Following adoption of the Pensions Act 2004 in the United Kingdom, a multi-annual plan of contributions to the UK pension fund (the "Recovery Plan") was established between the Group's UK companies and their pension funds. In order to limit the amount of contributions, the Group issued guarantees to the pension funds to cover the contributions to be made by its subsidiaries. Michelin Pensions Trust Ltd has also received an additional guarantee covering the possible insolvency of the participating entities. The risk is considered unlikely and the guarantee is capped at £100 million.

The last Recovery Plan calculations were performed on March 31, 2020 and the next ones will be performed on March 31, 2023. The actuarial assumptions used to measure the Recovery Plan liability are generally more conservative than the ones used to measure defined benefit obligations under IAS 19.

The amount of the Group's guarantee is equal to the difference, if positive, between the present value of future contributions and the amount of the provision booked in the accounts. At December 31, 2022, the present value of future contributions was less than the provision booked in the accounts. Consequently, the amount of the guarantees given to the Michelin Pensions Trust Ltd UK and the Fenner Pension Scheme Trustee Limited was equal to zero at that date.

For the Michelin Pension Trust Ltd, contributions are payable to the plan if the plan is underfunded. If the plan is overfunded, the contributions are deposited in an escrow account up to a certain level of overfunding, after which a contributions holiday is granted. When the amount in escrow exceeds a certain level, the local entity may apply for a refund (note 15).

For Fenner UK Pension Scheme Trustee Limited, a contributions holiday is granted once a certain funding level is met.

32.2.2 Other contingencies

In the normal course of business, the Group companies may be involved in administrative proceedings, litigation and claims. Although provisions have been recognized when the risks are established and an outflow of financial resources is probable, there exist uncertainties concerning some of these administrative proceedings, litigation and claims.

In the opinion of Group management, there are no other governmental, judicial or arbitration proceedings likely to have a material impact on the Group's financial position or cash position.

32.3 Assets pledged as collateral

32.3.1 Property, plant and equipment

Property, plant and equipment pledged as collateral for debt amounted to €33 million (2021: €33 million).

32.3.2 Financial assets

The €116 million held in an escrow account linked to the pension plan in the United Kingdom (2021: €184 million) is pledged to the plan and is therefore not freely available (note 15.2).

Loans and deposits amounting to €57 million (2021: €74 million) are pledged as collateral for debt (note 16 "Derivative instruments").

32.3.3 Trade receivables

The Group runs two separate programs whereby certain European and North American subsidiaries have transferred ownership interests in portfolios of eligible trade receivables. The maximum financing that can be raised from these programs amounts to €488 million (2021: €477 million). Since the Group has retained substantially all the risks and rewards of ownership, the ownership interests in the trade receivable portfolios sold by the European and North American subsidiaries have not been derecognized and the financing received from the financial institutions, amounting to €15 million at December 31, 2022 (2021: €15 million), has been accounted for as secured debt (note 26.2 "Loans from financial institutions and other").

NOTE 33 FINANCIAL RISK MANAGEMENT

33.1 Financial risk management policy

33.1.1 Organization of financial risk management

The Corporate Financing Department controls, measures and supervises financial risks for each company and region, as well as at Group level. The Corporate Financing Department reports directly to the Group Finance Department.

One of the Corporate Financing Department's ongoing missions is the formulation of financial risk management policies, monitored on the basis of a full array of internal standards, procedures and authoritative literature. Regional finance managers oversee the implementation of the Group's financial risk management policies by the regional treasury centers. Compliance with financial risk policies is assessed through internal audit reviews to evaluate risk control efficiency and identify areas of improvement.

All strategic decisions regarding Group financial risk hedging policy are made by the Group Finance Department. As a general rule, the Group strictly limits the use of derivatives to the sole purpose of hedging clearly identified exposures.

A Financial Risks Committee is responsible for establishing and validating financial risk management policies, identifying and measuring these risks and validating and monitoring hedging programs. The Financial Risks Committee, which is chaired by a Manager, meets on a monthly basis and includes members of the Group Finance Department and the Corporate Financing Department.

33.1.2 Liquidity risk

33.1.2.1 Risk factors

Liquidity is defined as the ability to repay borrowings when they fall due and to find new stable sources of financing so that there is always sufficient money to cover expenses. In the course of its business, the Group is exposed to the risk of having insufficient liquid resources to finance its operations and make the investments needed to drive its growth. It must therefore manage its cash reserves and confirmed lines of credit on a continuous basis.

33.1.2.2 Risk management response

The Corporate Financing Department is responsible for ensuring that the Group has access to adequate financing and liquidity at the lowest cost. The Group raises financing through long-term debt issues (bonds) on the capital markets, as well as through bank facilities (loans and credit lines), commercial paper programs and receivables securitization programs. The Group has also negotiated confirmed back-up credit lines and maintains cash reserves that are calibrated in order to ensure the refinancing of short-term debt. Long-term financing and confirmed back-up credit lines are essentially concentrated at the level of the Group financial holding companies.

Except in the case of particular restrictions or opportunities due to the specific features of local financial markets, the Group companies are financed in accordance with the following model:

- cash pooling with the Group for the management of day-to-day liquidity requirements;
- intercompany credit lines and loans to meet medium- and long-term requirements.

For subsidiaries that do not participate in the cash pool, short-term financing is the responsibility of the local treasurer.

The management of liquidity risk is supported by a system that forecasts short-, medium- and long-term financing requirements based on business forecasts and the strategic plans of the operating entities.

As a matter of prudent financial policy, the Group guards against the inclusion in its financial contracts of hard covenants or material adverse change clauses that could affect its ability to draw down credit lines or the facilities' term. At the reporting date, none of the Group's loan agreements included any clauses of this type. Concerning default and acceleration clauses included in the Group's loan agreements, the probability of trigger events occurring is low and the possible impact on the Group's financial position would not be material.

33.1.3 Currency risk

33.1.3.1 Risk factors

Currency risk is defined as the impact on financial indicators of fluctuations in the exchange rates of foreign currencies used in the normal course of business. The Group is exposed to currency risks on its foreign currency transactions (transaction risk) and also on the translation of its net investment in foreign subsidiaries (translation risk).

Foreign currency transaction risk arises from the monetary assets and liabilities of the company and its subsidiaries (mainly cash and cash equivalents, receivables, payables and borrowings) that are denominated in foreign currencies. It corresponds to the risk of a change in the exchange rate between the date when these monetary assets and liabilities are recorded in the accounts and the date when they are recovered or settled.

Foreign currency translation risk arises from the Group's net investment in foreign subsidiaries. It corresponds to the risk of a change in the exchange rate used to translate the net investment in the foreign subsidiary into euros during the consolidation process.

During certain operations, the Group may face foreign exchange exposures not recognized in the accounts but which can have a significant impact on the cash flow of the Group. These are future transactions such as the payment of internal Group dividends and internal Group capital increases, or company acquisitions. In this case, the Group may put in place hedging of its economic foreign exchange risk.

33.1.3.2 Risk management response

Foreign currency transaction risk

Foreign currency transaction risk is monitored locally by the Company and its subsidiaries and at Group level by the Corporate Financing Department.

Each Group company continually calculates its accounting exposure in relation to its functional currency and hedges it systematically. Temporary exemptions can, however, be approved by the Group Finance Department when it is not possible to hedge a currency on the market or when an exemption is justified due to exceptional market conditions.

Foreign currency payables and receivables of the same type and with equivalent maturities are netted off and only the net exposure is hedged. This is normally carried out through Compagnie Financière Michelin Suisse SA, or, alternatively, through a bank. Compagnie Financière Michelin Suisse SA in turn assesses its own resulting net exposure and hedges it with its banking partners. The main hedging instruments used are forward currency contracts. The structural exposure is hedged using long-term instruments (with a life of up to five years) and the operational exposure is hedged using short-term instruments (generally expiring within three months). Currency risk monitoring and hedging is based on Group internal standards and procedures. A system to closely monitor foreign currency transaction risk is implemented throughout the Group under the responsibility of the Corporate Financing Department. Gains and losses on foreign currency transactions are tracked on a monthly basis in a detailed management report.

Currency translation risk

The Group does not use hedging instruments to actively manage this risk.

Investments in foreign subsidiaries are booked in the functional currency of the parent company and are not included in the latter's foreign exchange position.

Foreign currency economic risk

The risk is hedged as soon as the transaction is highly probable and is above certain thresholds determined by the Group risk management policy, approved by the Financial Risks Committee. The instruments used are mainly currency options.

33.1.4 Interest rate risk

33.1.4.1 Risk factors

The Group's income statement may be affected by interest rate risk. An unfavorable change in interest rates may adversely affect future finance costs and cash flows. The Group is in a net debt position and is exposed to the risk of an increase in interest rates on the portion of its debt that is at variable rates. It may also be exposed to an opportunity risk in the case of a fall in interest rates, if too great a proportion of debt is at fixed rates, as well as on financial investments, depending on their interest terms.

33.1.4.2 Risk management response

The objective of interest rate management is to minimize financing costs whilst protecting future cash flows against unfavorable movements in interest rates. For this purpose, the Group uses various derivative instruments available in the market, but restricts itself to the use of “plain vanilla” instruments (interest rate swaps, mainly).

Interest rate exposure is analyzed and monitored by the Financial Risks Committee using monthly performance indicators and management reports.

The interest rate position is centralized by currency by the Corporate Financing Department, which is the only department permitted to undertake hedging operations. Interest rate hedging is concentrated on the main currencies. The Financial Risks Committee sets hedging limits by currency, taking into consideration the Group's gearing as hedging needs change in line with this ratio.

33.1.5 Equity risk

33.1.5.1 Risk factors

The Group holds non-controlling interests in companies whose share price fluctuates, among other things, in line with changes in the global stock markets, the multiples applied by the markets to the industries in which these companies operate and their specific economic and financial metrics. Equity investments are made for strategic rather than trading purposes. Equities are held under a medium- or long-term strategy, and not for short-term trading portfolio management.

Equity investments are made for strategic rather than trading purposes. Equities are held under a medium- or long-term strategy, and not for short-term trading portfolio management.

33.1.5.2 Risk management response

The Group Investments Committee, which comprises representatives from the Finance, Legal Affairs, Mergers & Acquisitions and Strategy Departments, is responsible for ensuring that investment management and monitoring rules are properly applied for its non-controlling interests. To this end, it reviews investments at annual intervals to assess the risk level and actual results compared to defined targets.

33.1.6 Counterparty risk

33.1.6.1 Risk factors

Counterparty risk is the risk of a debtor refusing or being unable to fulfill all or part of its obligations. The Group is exposed to counterparty risk on its contracts and financial instruments. Counterparty risk may lead to an impairment loss or a loss of liquidity. The Group is exposed to the risk of impairment losses arising from the investment of available cash in money market instruments and other marketable securities, as well as on finance receivables, derivative instruments and third-party guarantees. It is exposed to the risk of a loss of liquidity on its undrawn confirmed lines of credit.

33.1.6.2 Risk management response

The Group chooses its banks extremely carefully, particularly when it comes to the management of its cash investments. As it would be inappropriate to add financial risk to the other risks that are associated with its operations, the Group gives priority to the security and the liquidity of its cash investments. Cash investments consist of (i) financial instruments that are subject to no risk or an insignificant risk of changes in value purchased from a sufficiently diversified group of leading banks, and (ii) unrestricted units in diversified money market funds or short-term bond funds.

The Group is also exposed to counterparty risk on derivative instruments used for hedging purposes that have a positive fair value. These hedging instruments and the level of concentration by bank are tracked weekly by Group Treasury and monitored monthly by the Financial Risks Committee.

In order to mitigate counterparty risk on its derivative instruments, the Group exchanges collateral with its main banks.

33.1.7 Credit risk

33.1.7.1 Risk factors

Credit risks may arise when the Group grants credit to its customers. If a customer becomes insolvent or files for bankruptcy, it may default on the receivables held by the Group and this may have a negative impact on the Group's earnings and cash flows.

33.1.7.2 Risk management response

The Credit Department, which is part of the Group Financial Department, sets the maximum payment terms and customer credit limits to be applied by the operating companies. It manages and controls credit activity, risk and results, and is also responsible for managing and collecting trade receivables. The main policies and procedures are defined at Group level and are monitored and controlled at both regional and Group level.

33.2 Financial risk data

33.2.1 Liquidity risk

At December 31, 2022, the debt repayment schedule (principal and interest) and the maturities of undrawn confirmed credit lines are as follows:

(in € millions)	2023	2024	2025	2026	2027	2028	2029 and beyond
Bonds	622	68	812	59	354	552	3,465
Commercial paper	658	-	-	-	-	-	-
Loans from financial institutions and other	536	45	25	24	5	-	6
Lease liabilities	260	216	163	124	72	45	170
Derivative instruments	(53)	2	(21)	(13)	(9)	-	-
DEBT REPAYMENT SCHEDULE	**2,023**	**331**	**979**	**194**	**422**	**597**	**3,641**
LONG-TERM UNDRAWN CONFIRMED CREDIT LINES					**2,500**		

This table analyzes principal and interest payments on debt by payment date, as projected using available market data at the reporting date (interest is calculated in each currency on the basis of market rates, and converted into euros at period-end rates). The amounts shown are not discounted.

On May 23, 2022, the agreement for the €2,500 million syndicated credit lines was amended. The participating banks are unchanged, but the new agreement provides for a new five-year maturity (2027) with two one-year extension options at the lenders' discretion.

The Group considers that at December 31, 2022 its sources of financing were sufficient to meet the needs of the business:

- cash and cash equivalents for €2,584 million;
- cash management financial assets for €285 million;
- a €2,500 million NEU CP commercial paper program, of which €580 million had been utilized at December 31, 2022;
- a $700 million (€659 million) US CP commercial paper program, of which $75 million (€71 million) had been utilized at December 31, 2022;
- two €488 million receivables securitization programs that are utilized based on the availability of sufficient receivables of the required quality, with securitization debt at December 31, 2022 amounting to €15 million;
- €2,500 million in confirmed, undrawn lines of credit.

33.2.2 Currency risk

Foreign currency transaction risk

Net currency hedging positions are presented in the table below:

	December 31, 2022					December 31, 2021				
(in € millions)	EUR	CNY	USD	MXN	Other	EUR	CNY	USD	MXN	Other
Hedges	329	(119)	(2,160)	(1,049)	(1,360)	552	(208)	490	(571)	(1,222)

The other currencies mainly include currency hedges in GBP, THB and AUD.

A 1% unfavorable change in exchange rates for the above currencies would not have a material adverse effect on the consolidated income statement. This relatively low sensitivity to foreign currency transaction risk is consistent with the objective described in section 33.1.3 "Currency risk".

Because of the low volume of cash flow hedges (note 16 "Derivative instruments"), the sensitivity of equity to currency risk is not material.

Currency translation risk

A breakdown of equity by currency is provided in the following table:

(in € millions)	December 31, 2022	December 31, 2021
EUR	7,754	5,117
USD	4,369	5,085
GBP	1,082	1,509
CNY	1,056	923
BRL	1,011	850
THB	704	684
CAD	484	398
MXN	99	119
Other	557	286
TOTAL	**17,116**	**14,971**

33.2.3 Interest rate risk

Net debt at December 31, 2022 breaks down as follows by type of hedge and by currency:

	Net debt before hedging			Currency hedging	Net debt after currency hedging but before interest rate hedging			Interest rate hedging		Net debt after hedging		
(in € millions)	Fixed	Variable	Total		Fixed	Variable	Total	Fixed	Variable	Fixed	Variable	Total
USD	791	220	**1,011**	1,488	226	2,273	**2,499**	1,198	(1,198)	1,424	1,075	**2,499**
MXN	3	(5)	**(2)**	961	3	956	**959**	484	(484)	487	472	**959**
THB	46	182	**228**	356	46	538	**584**	324	(324)	370	214	**584**
GBP	46	(19)	**27**	348	46	329	**375**	188	(188)	234	141	**375**
AUD	30	(23)	**7**	326	30	303	**333**	155	(155)	185	148	**333**
EUR	4,931	(1,651)	**3,280**	(4,110)	5,496	(6,326)	**(830)**	(65)	65	5,431	(6,261)	**(830)**
Other currencies	120	(257)	**(137)**	631	120	374	**494**	337	(337)	457	37	**494**
Total before derivatives	**5,967**	**(1,553)**	**4,414**	**-**	**5,967**	**(1,553)**	**4,414**	**2,621**	**(2,621)**	**8,588**	**(4,174)**	**4,414**
Fair value of derivatives included in net debt			**(94)**				**(94)**					**(94)**
NET DEBT (NOTE 26)			**4,320**				**4,320**					**4,320**

The main reference rates to which the Group is exposed are Euribor and SOFR.

Financial instruments that are backed by a benchmark rate subject to the Libor reform have no significant impact on the Group's consolidated financial statements.

A 1-point parallel shift in the yield curves applied to the net debt components would have the following impact at December 31, 2022:

		Fair value impact			
(in € millions)	Annualized cash impact recognized in the income statement	Recognized in the income statement(1)	Recognized in other comprehensive income(2)	Not recognized(3)	Total
1-point downward shift	**(42)**	(45)	1	(318)	**(362)**
1-point increase	**42**	43	(1)	318	**360**

(1) *The Group's interest rate management policy aims at hedging perfectly identified future cash flows. However, some derivative instruments do not qualify for hedge accounting under IFRS and are measured at fair value through profit or loss.*

(2) *For derivatives qualifying for hedge accounting (cash flow hedges).*

(3) *Some fair value impacts are not accounted for because the underlying net debt component is not measured at fair value but at amortized cost.*

33.2.4 Equity risk

Equity risk is the risk of a 10% unfavorable change in the price of equities held by the Group.

(in € millions)	December 31, 2022	December 31, 2021
Carrying amount (note 15.1)	387	279
IMPACT ON EQUITY OF A 10% UNFAVORABLE CHANGE IN THE PRICE OF EQUITIES HELD BY THE GROUP	**(31)**	**(22)**

33.2.5 Counterparty risk

At December 31, 2022, 39% of cash and cash equivalents (including cash management financial assets and borrowing collateral) was invested in money market or short-term bond funds to allow for a maximum diversification of counterparty risk. The balance is invested directly with international banks that meet the counterparty risk management criteria defined by the Group.

Furthermore, most derivatives are contracted with the same banks.

33.2.6 Credit risk

At December 31, 2022, net receivable balances from the ten largest customers amounted to €548 million (2021: €496 million). Out of these, seven were located in North America, two in Europe and one in the Africa, India, Middle East region. At the same date, 84 customers (2021: 69) had been granted credit limits in excess of €10 million. Out of these, 36 were located in Europe, 32 in North America, six in Asia, four in South America, four in the Africa, India, Middle East region and two in Central America. No material collateral has been received to limit the related credit risk. In 2022, credit losses represented 0.10% of sales (2021: 0.07%).

33.2.7 Commodities derivatives

In 2022, the Group did not have any significant hedges of commodities purchases (note 16.3 “Derivative contractual amounts”).

33.3 Capital risk management

The Group's objectives when managing its capital are to protect its ability to continue as a going concern and to ensure its development, so that it can provide returns for shareholders and benefits for other stakeholders.

The main indicator used for capital management purposes is gearing. Gearing corresponds to the ratio of net debt to equity.

(in € millions)	December 31, 2022	December 31, 2021
Net debt (note 26)	4,320	2,789
Total equity	17,116	14,971
GEARING	**0.25**	**0.19**

33.4 Classification of financial assets

Group financial assets break down as follows between the categories “at fair value through profit or loss (FVTPL)”, “at fair value through other comprehensive income (FVOCI)” and “at amortized cost” at December 31, 2022:

(in € millions)	FVTPL	FVOCI	Amortized cost	Total 2022
Trade receivables	-	-	4,205	4,205
Current financial assets	92	118	442	652
Cash and cash equivalents	1,593	-	991	2,584
Non-current financial assets	428	387	346	1,161
TOTAL FINANCIAL ASSETS	**2,113**	**505**	**5,984**	**8,602**

Non-current financial assets at fair value through profit or loss consist mainly of the Solesis preferred shares (note 4.2.2) and the escrow account related to UK pension plans (note 27).

Investments in non-consolidated companies are measured at fair value through other comprehensive income (note 15).

33.5 Fair value measurement hierarchy

The following tables present Group assets and liabilities measured at fair value at December 31, 2022 and 2021 by level in the fair value measurement hierarchy:

(in € millions)	Level 1	Level 2	Level 3	Total 2022
Cash and cash equivalents	1,593	-	-	1,593
Current financial assets (including derivatives)	57	153	-	210
Non-current financial assets (including derivatives)	145	303	367	815
TOTAL ASSETS	**1,795**	**456**	**367**	**2,618**
Derivative instruments (note 16.2)	-	114	-	114
TOTAL LIABILITIES	**-**	**114**	**-**	**114**

(in € millions)	Level 1	Level 2	Level 3	Total 2021
Cash and cash equivalents	3,698	-	-	3,698
Current financial assets (including derivatives)	74	97	-	171
Non-current financial assets (including derivatives)	218	372	256	846
TOTAL ASSETS	**3,990**	**469**	**256**	**4,715**
Derivative instruments (note 16.2)	-	185	-	185
TOTAL LIABILITIES	**-**	**185**	**-**	**185**

There has been no significant transfer during these two years between level 1 and level 2.

The following table presents the changes in level 3 instruments for the year ended December 31, 2022:

(in € millions)	
At January 1, 2022	**256**
Acquisitions	46
Disposals	-
Gains or losses for the year recognized in other comprehensive income	60
Other	5
AT DECEMBER 31, 2022	**367**

NOTE 34 RELATED-PARTY TRANSACTIONS

Management and Supervisory Bodies

Florent Menegaux, Managing Chairman and Managing General Partner of Compagnie Générale des Établissements Michelin, received a statutory distribution in 2022 based on 2021 net income of €2.6 million (2021 based on 2020 net income: €0.8 million). He was also awarded compensation of €1.4 million (payroll taxes included) as Chairman of Manufacture Française des Pneumatiques Michelin (2021: €1.2 million). The benefits that vested during the period in respect of a post-employment defined benefit plan amounted to €0.3 million (2021: €0.4 million). In addition, an expense of €0.5 million (2021: €0.3 million) was recognized in the Company's 2022 financial statements, corresponding to performance shares granted to Florent Menegaux in respect of years after 2019.

Yves Chapot received compensation of €2.2 million (payroll taxes included) in 2022 as General Manager of Compagnie Générale des Établissements Michelin (2021: €1.7 million). The benefits that vested during the period in respect of a post-employment defined benefit plan amounted to €0.4 million (2021: €0.4 million). A provision of €0.6 million (including payroll taxes) was recognized at December 31, 2022 based on vested rights under the annual variable compensation plan. In addition, an expense of €0.3 million (2021: €0.2 million) was recognized in the Company's 2022 financial statements, corresponding to performance shares granted to Yves Chapot in respect of years after 2019.

At December 31, 2022, the Group Executive Committee had nine members (2021: nine members). Employee benefits costs for members of the Group Executive Committee break down as follows:

(in € millions)	2022	2021
Short-term and termination benefits	10.3	9.9
Post-employment benefits	1.2	1.6
Other long-term benefits	-	-
Share-based payments	1.9	2.3
COMPENSATION GRANTED TO MEMBERS OF THE GROUP EXECUTIVE COMMITTEE	**13.4**	**13.8**

The compensation paid in 2022 to the Supervisory Board members for 2021 was €0.7 million (2021 for 2020: €0.7 million).

NOTE 35 EVENTS AFTER THE REPORTING DATE

No material events occurred between the reporting date and the date when the consolidated financial statements were authorized for issue by the Managing Chairman.

NOTE 36 LIST OF CONSOLIDATED COMPANIES

Countries are presented based on the Michelin geographical regions and are listed within each region according to the alphabetical order of the French names.

Companies	Consolidation method	Registered office	Type	% interest
EUROPE				
GERMANY				
Michelin Reifenwerke AG & Co. Kommanditgesellschaft auf Aktien	Full consolidation method	Karlsruhe	Manufacturing & commercial	100.00
Euromaster GmbH	Full consolidation method	Mannheim	Commercial	100.00
Euromaster Reifenservice Deutschland GmbH	Full consolidation method	Mannheim	Commercial	100.00
Euromaster Immobilien GmbH	Full consolidation method	Mannheim	Commercial	100.00
Advantico GmbH	Full consolidation method	Mannheim	Commercial	60.00
Michelin Deutschland GmbH	Full consolidation method	Karlsruhe	Financial	100.00
PTG Reifendruckregelsysteme GmbH	Full consolidation method	Neuss	Commercial	100.00
Michelin Finanz Gesellschaft für Beteiligungen AG & Co. OHG	Full consolidation method	Karlsruhe	Financial	100.00
Ihle Tires GmbH	Full consolidation method	Muggensturm	Commercial	100.00
Tirecorp GmbH	Full consolidation method	Muggensturm	Commercial	100.00
Ihle International GmbH	Full consolidation method	Muggensturm	Commercial	100.00
ProServ Produktionsservice und Personaldienste GmbH	Equity method	Karlsruhe	Miscellaneous	35.00
Dichtelemente Hallite GmbH	Full consolidation method	Hamburg	Manufacturing & commercial	100.00
Camso Deutschland GmbH	Full consolidation method	Duisbourg	Commercial	100.00
Masternaut GmbH	Full consolidation method	Munich	Commercial	100.00
TyresNParts GmbH	Full consolidation method	Frankfurt	Commercial	100.00
AUSTRIA				
Michelin Reifenverkaufsgesellschaft m.b.H.	Full consolidation method	Vienna	Miscellaneous	100.00
Euromaster Reifenservice GmbH	Full consolidation method	Vienna	Commercial	100.00
Camso Austria GmbH	Full consolidation method	Korneubourg	Commercial	100.00
BELGIUM				
Michelin Belux S.A.	Full consolidation method	Zellik	Commercial	100.00
Camsotech European R&D Centre NV	Full consolidation method	Ghent	Financial	100.00
Eurowheel BVBA	Full consolidation method	Herenthout	Manufacturing	100.00
ITC International Tire NV	Full consolidation method	Wommelgem	Commercial	85.00
Industrial International Tire Company NV	Full consolidation method	Wommelgem	Commercial	85.00
BULGARIA				
Michelin Bulgaria EOOD	Full consolidation method	Sofia	Miscellaneous	100.00
CROATIA				
Michelin Hrvatska d.o.o.	Full consolidation method	Zagreb	Commercial	100.00
DENMARK				
Euromaster Danmark A/S	Full consolidation method	Skanderborg	Commercial	100.00
Michelin Gummi Compagni A/S	Full consolidation method	Frederiksberg	Miscellaneous	100.00
Euromaster Ejendomme A/S	Full consolidation method	Skanderborg	Commercial	100.00
Viborg Direct A/S	Full consolidation method	Skanderborg	Commercial	100.00
Ihle Skandinavien ApS	Full consolidation method	Copenhagen	Commercial	100.00
SPAIN				
Michelin España Portugal, S.A.	Full consolidation method	Tres Cantos	Manufacturing & commercial	99.81
Euromaster Automoción y Servicios, S.A.	Full consolidation method	Madrid	Commercial	100.00
Nex Tyres, S.L.	Full consolidation method	Lleida	Commercial	50.00

Companies	Consolidation method	Registered office	Type	% interest
Lehigh Spain, S.L.	Full consolidation method	Barcelona	Miscellaneous	100.00
Servicios y Asistencia OK24, S.L.	Full consolidation method	Madrid	Commercial	51.00
Fundación Michelin España Portugal	Full consolidation method	Valladolid	Miscellaneous	99.81
Rodi Metro, S.L.	Equity method	Lleida	Miscellaneous	20.00
Fenner Dunlop, S.L.	Full consolidation method	Esparreguera	Manufacturing & commercial	100.00
Camso Spain, S.L.	Full consolidation method	Saragossa	Commercial	100.00
Masternaut Iberica, S.L.	Full consolidation method	Madrid	Commercial	100.00
ESTONIA				
Michelin Rehvide OÜ	Full consolidation method	Tallinn	Miscellaneous	100.00
Technobalt Eesti OÜ	Full consolidation method	Peetri	Manufacturing & commercial	100.00
FINLAND				
Oy Suomen Michelin Ab	Full consolidation method	Espoo	Miscellaneous	100.00
Suomen Euromaster Oy	Full consolidation method	Pori	Commercial	100.00
FRANCE				
Compagnie Générale des Établissements Michelin	Full consolidation method	Clermont-Ferrand	Parent	-
Compagnie Financière Michelin	Full consolidation method	Clermont-Ferrand	Financial	100.00
Manufacture Française des Pneumatiques Michelin	Full consolidation method	Clermont-Ferrand	Manufacturing & commercial	100.00
Pneu Laurent	Full consolidation method	Avallon	Manufacturing & commercial	100.00
Simorep et Cie – Société du Caoutchouc Synthétique Michelin	Full consolidation method	Bassens	Manufacturing	100.00
Euromaster France	Full consolidation method	Montbonnot-Saint-Martin	Commercial	100.00
Michelin Aircraft Tyre	Full consolidation method	Clermont-Ferrand	Commercial	100.00
Transityre France	Full consolidation method	Clermont-Ferrand	Commercial	100.00
Alliance Réseaux	Full consolidation method	Saint-Jean-de-Maurienne	Commercial	100.00
Spika	Full consolidation method	Clermont-Ferrand	Financial	100.00
Michelin Air Services	Full consolidation method	Clermont-Ferrand	Miscellaneous	100.00
Tyredating	Full consolidation method	Lyon	Commercial	100.00
Ihle France	Full consolidation method	Schiltigheim	Commercial	100.00
Euromaster Services et Management	Full consolidation method	Clermont-Ferrand	Commercial	100.00
GIE Michelin Placements	Full consolidation method	Clermont-Ferrand	Financial	100.00
Simp	Full consolidation method	Clermont-Ferrand	Financial	51.00
Société d'Investissements et de Mécanique	Full consolidation method	Montagny	Miscellaneous	100.00
Michelin Ventures SAS	Full consolidation method	Clermont-Ferrand	Financial	100.00
Oxymore	Full consolidation method	Montbonnot-Saint-Martin	Commercial	95.00
Teleflow SAS	Full consolidation method	Mably	Miscellaneous	100.00
Michelin Middle East	Full consolidation method	Clermont-Ferrand	Financial	100.00
Michelin Europe (EEIG)	Full consolidation method	Clermont-Ferrand	Miscellaneous	99.95
AddUp	Equity method	Cébazat	Manufacturing	56.49
MMM !	Full consolidation method	Paris	Miscellaneous	100.00
Allopneus	Full consolidation method	Aix-en-Provence	Commercial	100.00
Call For You	Full consolidation method	Aix-en-Provence	Commercial	100.00
Log For You	Full consolidation method	Aix-en-Provence	Commercial	100.00
Rautor	Full consolidation method	Aix-en-Provence	Commercial	100.00
Watèa SAS	Full consolidation method	Clermont-Ferrand	Commercial	100.00
Société Internationale de Plantations d'Hévéas	Equity method	Courbevoie	Miscellaneous	41.97

Companies	Consolidation method	Registered office	Type	% interest
Symbio	Equity method	Fontaine	Miscellaneous	50.00
Taquipneu	Equity method	Montauban	Miscellaneous	22.92
Hympulsion	Equity method	Lyon	Manufacturing & commercial	22.78
Fenner Dunlop SARL	Full consolidation method	Elancourt	Manufacturing & commercial	100.00
Camso France SAS	Full consolidation method	Le Malesherbois	Commercial	100.00
Masternaut SAS	Full consolidation method	Puteaux (Paris)	Commercial	100.00
Masternaut International SAS	Full consolidation method	Louviers	Financial	100.00
Runa	Equity method	Lyon	Miscellaneous	48.99
Resicare	Full consolidation method	Clermont-Ferrand	Manufacturing	100.00
Aircaptif SAS	Full consolidation method	Trappes	Miscellaneous	100.00
Wanikou Technologie SAS	Full consolidation method	Trappes	Miscellaneous	100.00
Michelin Editions SAS	Equity method	Paris	Miscellaneous	40.00
S.A.S Foncière Le Pic	Full consolidation method	Clermont-Ferrand	Miscellaneous	100.00
GREECE				
Elastika Michelin Single Member S.A.	Full consolidation method	Halandri	Commercial	100.00
HUNGARY				
Michelin Hungaria Tyre Manufacture Ltd.	Full consolidation method	Nyíregyháza	Manufacturing & commercial	100.00
Ihle Magyarország Kft.	Full consolidation method	Komárom	Commercial	100.00
Camso Manufacturing Hungary Kft.	Full consolidation method	Budapest	Financial	100.00
IRELAND				
Miripro Insurance Company DAC	Full consolidation method	Dublin	Miscellaneous	100.00
Async Technologies Limited	Equity method	Ennis	Miscellaneous	25.00
ITALY				
Società per Azioni Michelin Italiana	Full consolidation method	Turin	Manufacturing & commercial	100.00
Fondazione Michelin Sviluppo	Full consolidation method	Turin	Miscellaneous	100.00
Euromaster Italia S.r.l.	Full consolidation method	Milan	Commercial	100.00
MAV S.p.A.	Full consolidation method	Bosentino	Manufacturing & commercial	100.00
Hallite Italia S.r.l.	Full consolidation method	Collesalvetti	Manufacturing & commercial	100.00
Fenner Dunlop Italia S.r.l.	Full consolidation method	Milan	Manufacturing & commercial	100.00
Camso Manufacturing Italy S.r.l.	Full consolidation method	Milan	Manufacturing	100.00
Camso Italy S.p.A.	Full consolidation method	Ozzero	Commercial	100.00
Webraska Italia S.r.l.	Full consolidation method	Milan	Miscellaneous	100.00
LATVIA				
TB Industry SIA	Full consolidation method	Riga	Manufacturing & commercial	100.00
LITHUANIA				
UAB Michelin Padangos	Full consolidation method	Vilnius	Miscellaneous	100.00
Technobalta UAB	Full consolidation method	Vilnius	Manufacturing & commercial	100.00
LUXEMBOURG				
Camso International S.à.r.l.	Full consolidation method	Luxembourg	Financial	100.00
Camso Holding S.à.r.l.	Full consolidation method	Luxembourg	Financial	100.00
NORWAY				
Norsk Michelin Gummi AS	Full consolidation method	Oslo	Miscellaneous	100.00
Fenner Mandals AS	Full consolidation method	Mandal	Manufacturing & commercial	100.00
NETHERLANDS				
Euromaster Bandenservice B.V.	Full consolidation method	Deventer	Commercial	100.00
Michelin Nederland N.V.	Full consolidation method	Drunen	Commercial	100.00
Transityre B.V.	Full consolidation method	Breda	Commercial	100.00
Michelin Distribution B.V.	Full consolidation method	Breda	Commercial	100.00

Companies	Consolidation method	Registered office	Type	% interest
Actor B.V.	Full consolidation method	Deventer	Commercial	100.00
Euromaster Vastgoed B.V.	Full consolidation method	Deventer	Commercial	100.00
MC Projects B.V.	Equity method	Maastricht	Miscellaneous	50.00
Dunlop Service B.V.	Full consolidation method	Klazienaveen	Manufacturing & commercial	100.00
Fenner Dunlop B.V.	Full consolidation method	Drachten	Manufacturing & commercial	100.00
De Bruin & Berends B.V.	Full consolidation method	Drachten	Financial	100.00
Dunlop Assets B.V.	Full consolidation method	Klazienaveen	Financial	100.00
Dunlop Enerka Netherlands B.V.	Full consolidation method	Drachten	Financial	100.00
Dunlop Enerka Netherlands Holding B.V.	Full consolidation method	Klazienaveen	Financial	100.00
Dunlop Manufacturing Holdings B.V.	Full consolidation method	Drachten	Financial	100.00
Dunlop Service International B.V.	Full consolidation method	Drachten	Financial	100.00
Dunlop Conveyor Belting International B.V.	Full consolidation method	Drachten	Financial	100.00
Dunlop Sales & Marketing B.V.	Full consolidation method	Klazienaveen	Financial	100.00
Fenner Dunlop Steelcord B.V.	Full consolidation method	Drachten	Financial	100.00
Camso Nederland B.V.	Full consolidation method	Nieuwegein	Commercial	100.00
Masternaut B.V.	Full consolidation method	Breda	Commercial	100.00
POLAND				
Michelin Polska sp. z o.o.	Full consolidation method	Olsztyn	Manufacturing & commercial	100.00
Euromaster Polska sp. z.o.o.	Full consolidation method	Olsztyn	Commercial	100.00
Michelin Development Foundation (Fundacja Rozwoju Michelin)	Full consolidation method	Olsztyn	Miscellaneous	100.00
Dunlop Conveyor Belting Polska sp. z.o.o.	Full consolidation method	Mikołów	Manufacturing & commercial	100.00
Camso Polska S.A.	Full consolidation method	Warsaw	Commercial	100.00
Michelin Speciality Materials Recovery Poland sp. z o.o.	Full consolidation method	Olsztyn	Manufacturing & commercial	100.00
PORTUGAL				
Michelin-Companhia Luso-Pneu, Limitada	Full consolidation method	Lisbon	Miscellaneous	100.00
Euromaster Portugal - Sociedade Unipessoal, LDA	Full consolidation method	Lisbon	Commercial	100.00
CZECH REPUBLIC				
Euromaster Česká republika s.r.o. (Euromaster Ceska republika s.r.o.)	Full consolidation method	Prague	Commercial	100.00
Michelin Česká republika s.r.o. (Michelin Ceska republika s.r.o.)	Full consolidation method	Prague	Miscellaneous	100.00
Ihle Czech, s.r.o.	Full consolidation method	Plzen	Commercial	100.00
Cemat trading spol s.r.o.	Full consolidation method	Bohumín	Commercial	100.00
ROMANIA				
Michelin Romania S.A.	Full consolidation method	Voluntari	Manufacturing & commercial	99.86
Euromaster Tyre & Services Romania S.A.	Full consolidation method	Voluntari	Commercial	100.00
Ihle Anvelope SRL	Full consolidation method	Pitesti	Commercial	100.00
UNITED KINGDOM				
Michelin Tyre Public Limited Company	Full consolidation method	Stoke-on-Trent	Manufacturing & commercial	100.00
ATS Euromaster Limited	Full consolidation method	Birmingham	Commercial	100.00
Associated Tyre Specialists (Investment) Limited	Full consolidation method	Birmingham	Commercial	100.00
ATS Property and Real Estate Limited	Full consolidation method	Birmingham	Commercial	100.00
Blackcircles.com Limited	Full consolidation method	Edinburgh	Commercial	100.00
Michelin Finance (U.K.) Limited	Full consolidation method	London	Financial	100.00
Michelin Lifestyle Limited	Full consolidation method	Stoke-on-Trent	Commercial	100.00
Michelin Development Limited	Full consolidation method	Stoke-on-Trent	Miscellaneous	100.00
TFM Holdings Limited	Full consolidation method	Eastleigh	Commercial	100.00

Companies	Consolidation method	Registered office	Type	% interest
Michelin Travel Partner UK Limited				
Fenner Group Holdings Limited	Full consolidation method	Stoke-on-Trent	Financial	100.00
Fenner International Limited	Full consolidation method	Stoke-on-Trent	Financial	100.00
J.H. Fenner & Co. Limited	Full consolidation method	Stoke-on-Trent	Manufacturing & commercial	100.00
Hallite Seals International Limited	Full consolidation method	Stoke-on-Trent	Manufacturing & commercial	100.00
James Dawson & Son Limited	Full consolidation method	Stoke-on-Trent	Manufacturing & commercial	100.00
Dunlop Conveyor Belting Investments Limited	Full consolidation method	Stoke-on-Trent	Financial	100.00
Fenner N.A. Limited	Full consolidation method	Stoke-on-Trent	Financial	100.00
Hall & Hall Limited	Full consolidation method	Stoke-on-Trent	Financial	100.00
J.H. Fenner & Co (Advanced Engineering Products) Limited	Full consolidation method	Stoke-on-Trent	Financial	100.00
J.H. Fenner & Co. (India) Limited	Full consolidation method	Stoke-on-Trent	Financial	100.00
James Dawson (China) Limited	Full consolidation method	Stoke-on-Trent	Financial	100.00
Fenner International Australia Limited	Full consolidation method	Stoke-on-Trent	Financial	100.00
Fenner Advanced Sealing Investments Limited	Full consolidation method	Hull	Financial	100.00
Fenner Advanced Sealing Technologies Limited	Full consolidation method	Hull	Financial	100.00
Fenner Drives Limited	Full consolidation method	Hull	Financial	100.00
Fenner Dunlop Limited	Full consolidation method	Hull	Financial	100.00
Hallite Limited	Full consolidation method	Hull	Financial	100.00
Hallite Polytek Limited	Full consolidation method	Hull	Financial	100.00
Indico (Europe) Limited	Full consolidation method	Hull	Financial	100.00
J.H. Fenner & Co. (Special Belting) Limited	Full consolidation method	Hull	Financial	100.00
Norwegian Seals UK Limited	Full consolidation method	Hull	Financial	100.00
Turner Belting Limited	Full consolidation method	Hull	Financial	100.00
Vulcanisers International Limited	Full consolidation method	Hull	Financial	100.00
Camso UK Limited	Full consolidation method	Cowbridge	Commercial	100.00
Masternaut Group Holdings Limited	Full consolidation method	Marlow	Financial	100.00
Masternaut Limited	Full consolidation method	Aberford	Commercial	100.00
Masternaut Bidco Limited	Full consolidation method	London	Financial	100.00
Masternaut Holdings Limited	Full consolidation method	Marlow	Commercial	100.00
Masternaut Risk Solutions Limited	Full consolidation method	Marlow	Commercial	100.00
Old World Limited	Full consolidation method	London	Miscellaneous	100.00
SERBIA				
Tigar Tyres d.o.o.	Full consolidation method	Pirot	Manufacturing & commercial	100.00
SLOVAKIA				
Michelin Slovensko, s.r.o.	Full consolidation method	Bratislava	Miscellaneous	100.00
Ihle Slovakia s.r.o.	Full consolidation method	Bratislava	Commercial	100.00
Ihle Slovakia Logistic a Servis s.r.o.	Full consolidation method	Bratislava	Commercial	100.00
CEMAT s.r.o. Slovakia	Full consolidation method	Martin-Priekopa	Commercial	100.00
SLOVENIA				
Michelin Slovenija, pnevmatike, d.o.o.	Full consolidation method	Ljubljana	Miscellaneous	100.00
Ihle pnevmatike, d.o.o.	Full consolidation method	Maribor	Commercial	100.00
SWEDEN				
Euromaster AB	Full consolidation method	Varberg	Commercial	100.00
Michelin Nordic AB	Full consolidation method	Stockholm	Commercial	100.00
Masternaut AB	Full consolidation method	Stockholm	Commercial	100.00
Scandinavian Enviro Systems AB	Equity method	Gothenburg	Manufacturing & commercial	20.00
SWITZERLAND				
Euromaster (Suisse) S.A.	Full consolidation method	Givisiez	Commercial	100.00

Companies	Consolidation method	Registered office	Type	% interest
Nitor S.A.				
Michelin Suisse S.A.	Full consolidation method	Givisiez	Commercial	100.00
Compagnie Financière Michelin Suisse S.A.	Full consolidation method	Granges-Paccot	Financial	100.00
Michelin Recherche et Technique S.A.	Full consolidation method	Granges-Paccot	Miscellaneous	100.00
Michelin Mexico Properties Sàrl	Full consolidation method	Granges-Paccot	Financial	100.00
Michelin Finanz Gesellschaft für Beteiligungen S.A.	Full consolidation method	Granges-Paccot	Financial	100.00
Michelin Invest S.A.	Full consolidation method	Granges-Paccot	Financial	100.00
Ihle Service & Logistik Schweiz AG	Full consolidation method	Bülach	Commercial	100.00
Michelin Global Mobility S.A.	Full consolidation method	Granges-Paccot	Miscellaneous	100.00
Camso Schweiz AG	Full consolidation method	Schaffhouse	Commercial	100.00
TURKEY				
Michelin Lastikleri Ticaret A.S.	Full consolidation method	Istanbul	Commercial	100.00
Euromaster Lastik Ve Servis Limited Sirketi	Full consolidation method	Istanbul	Commercial	100.00
Camso Lastik Ticaret Limited Sirketi	Full consolidation method	Istanbul	Commercial	100.00
AFRICA/INDIA/MIDDLE EAST				
SOUTH AFRICA				
Michelin Tyre Company South Africa Proprietary Limited	Full consolidation method	Boksburg	Commercial	100.00
Fenner (South Africa) (Pty) Limited	Full consolidation method	Isando	Financial	100.00
Fenner Conveyor Belting (South Africa) (Pty) Limited	Full consolidation method	Isando	Manufacturing & commercial	100.00
Michelin Connected Fleet South Africa (Pty) Limited	Full consolidation method	Boksburg	Miscellaneous	100.00
ALGERIA				
Société d'Applications Techniques Industrielles	Full consolidation method	Algiers	Commercial	100.00
SAUDI ARABIA				
E.A. Juffali & Brothers for Tyres	Equity method	Jeddah	Commercial	50.00
CDI Products Arabia Industrial LLC	Full consolidation method	Al Khobar	Manufacturing & commercial	50.00
CAMEROON				
Société Moderne du Pneumatique Camerounais	Full consolidation method	Douala	Commercial	100.00
IVORY COAST				
Société Africaine de Plantations d'Hévéas	Equity method	Abidjan	Miscellaneous	18.00
UNITED ARAB EMIRATES				
Michelin AIM FZCO	Full consolidation method	Dubai	Miscellaneous	100.00
GHANA				
Dunlop Conveyor Belting Ghana Limited	Full consolidation method	Accra	Manufacturing & commercial	100.00
INDIA				
Michelin India Private Limited	Full consolidation method	Chennai	Manufacturing	100.00
Michelin India Technology Center Private Limited	Full consolidation method	Gurgaon	Miscellaneous	100.00
Fenner Conveyor Belting Private Limited	Full consolidation method	Madurai	Manufacturing & commercial	100.00
Hallite Sealing Solutions India Private Limited	Full consolidation method	Bangalore	Manufacturing & commercial	100.00
Camso India LLP	Full consolidation method	Gurgaon	Commercial	100.00
KENYA				
Tyre Distribution Africa Limited	Equity method	Nairobi	Miscellaneous	49.00
MOROCCO				
Fenner Dunlop Maroc SARL	Full consolidation method	Casablanca	Manufacturing & commercial	100.00
Michelin Maroc SARL	Full consolidation method	Casablanca	Commercial	100.00

Companies	Consolidation method	Registered office	Type	% interest
NIGERIA				
Michelin Tyre Services Company Ltd.	Full consolidation method	Lagos	Commercial	95.83
SRI LANKA				
Michelin Lanka (Private) Limited	Full consolidation method	Ja-Ela	Manufacturing	100.00
Camso Trading (Private) Limited	Full consolidation method	Ja-Ela	Commercial	100.00
Camso Global Business Services (Private) Limited	Full consolidation method	Colombo	Financial	100.00
NORTH AMERICA				
CANADA				
Michelin North America (Canada) Inc.	Full consolidation method	Laval	Manufacturing & commercial	100.00
Michelin Retread Technologies (Canada) Inc.	Full consolidation method	New Glasgow	Commercial	100.00
Michelin Development (Canada) Inc.	Full consolidation method	New Glasgow	Miscellaneous	100.00
Oliver Rubber Canada Limited	Full consolidation method	Granton, Nova Scotia	Commercial	100.00
Fenner Dunlop (Bracebridge), Inc.	Full consolidation method	Bracebridge	Manufacturing & commercial	100.00
Hallite Seals (Canada) Ltd	Full consolidation method	Mississauga	Manufacturing & commercial	100.00
Camso Inc.	Full consolidation method	Magog	Financial	100.00
Camso Distribution Canada Inc.	Full consolidation method	Mississauga	Commercial	100.00
Klinge Tire Management Consultants CA Ltd	Full consolidation method	Toronto	Miscellaneous	100.00
UNITED STATES OF AMERICA				
Michelin North America, Inc.	Full consolidation method	New York	Manufacturing & commercial	100.00
Michelin Retread Technologies, Inc.	Full consolidation method	Wilmington	Commercial	100.00
CR Funding Corporation	Full consolidation method	Wilmington	Financial	100.00
Michelin Corporation	Full consolidation method	New York	Financial	100.00
Oliver Rubber Company, LLC	Full consolidation method	Wilmington	Manufacturing	100.00
NexTraq, LLC	Full consolidation method	Wilmington	Commercial	100.00
Tire Centers West, LLC	Full consolidation method	Wilmington	Commercial	100.00
Lehigh Technologies, Inc.	Full consolidation method	Wilmington	Commercial	100.00
TBC Corporation	Equity method	Palm Beach Gardens	Commercial	50.00
T & W Tire, LLC	Equity method	Oklahoma City	Commercial	25.00
Snider Tire, Inc.	Equity method	Greensboro	Commercial	25.00
Fenner America, Inc.	Full consolidation method	Wilmington	Financial	100.00
Fenner Advanced Sealing Technologies, LLC	Full consolidation method	Wilmington	Financial	100.00
Fenner U.S., Inc.	Full consolidation method	Wilmington	Financial	100.00
American Industrial Plastics, LLC	Full consolidation method	Plantation	Manufacturing & commercial	100.00
CDI Energy Products, LLC	Full consolidation method	Dallas	Manufacturing & commercial	100.00
Hallite Seals Americas, LLC	Full consolidation method	Plymouth	Manufacturing & commercial	100.00
Solesis, Inc.	Full consolidation method	Harrisburg	Financial	100.00
Fenner Dunlop Conveyor Systems and Services, LLC	Full consolidation method	Harrisburg	Manufacturing & commercial	100.00
Fenner Dunlop Americas, LLC	Full consolidation method	Harrisburg	Manufacturing & commercial	100.00
Fenner Dunlop (Port Clinton), LLC	Full consolidation method	Columbus	Manufacturing & commercial	100.00
Fenner Dunlop (Toledo), LLC	Full consolidation method	Columbus	Manufacturing & commercial	100.00
Mandals US, LLC	Full consolidation method	Dallas	Manufacturing & commercial	100.00
Solesis Holdings, LLC	Equity method	Charlotte	Miscellaneous	49.00
Camso Holding USA, LLC	Full consolidation method	Wilmington	Financial	100.00
Camso Manufacturing USA, Ltd.	Full consolidation method	Wilmington	Manufacturing	100.00
Camso USA Inc.	Full consolidation method	Tallahassee	Commercial	100.00
Industrial Tire/DFW, LLC	Full consolidation method	Irving	Commercial	67.00
Blacksmith OTR, LLC	Equity method	Rome	Miscellaneous	50.00

Companies	Consolidation method	Registered office	Type	% interest
Airflash, Inc.	Full consolidation method	Saratoga	Miscellaneous	100.00
Achilles Tires USA, Inc.	Full consolidation method	Los Angeles	Commercial	99.64
The Wine Advocate, Inc.	Full consolidation method	Parkton	Miscellaneous	100.00
Tablet, LLC	Full consolidation method	Wilmington	Miscellaneous	100.00
Klinge Tire Management Consultants, Inc.	Full consolidation method	Carson City	Miscellaneous	100.00
RoadBotics, Inc. (a Delaware corporation)	Full consolidation method	Pittsburgh	Miscellaneous	100.00
MEXICO				
Industrias Michelin, S.A. de C.V.	Full consolidation method	Querétaro	Manufacturing & commercial	100.00
Michelin Sascar Mexico S.A. de C.V.	Full consolidation method	Querétaro	Commercial	100.00
Michelin Mexico Services, S.A. de C.V.	Full consolidation method	Querétaro	Miscellaneous	100.00
Camso Distribución México, S.A. de C.V.	Full consolidation method	Tultitlan	Commercial	100.00
PANAMA				
Michelin Panama Corp.	Full consolidation method	Panama	Miscellaneous	100.00
SOUTH AMERICA				
ARGENTINA				
Michelin Argentina Sociedad Anónima, Industrial, Comercial y Financiera	Full consolidation method	Buenos Aires	Commercial	100.00
Rodaco Argentina S.A.U.	Full consolidation method	Buenos Aires	Commercial	100.00
BRAZIL				
Sociedade Michelin de Participações, Indústria e Comércio Ltda.	Full consolidation method	Rio de Janeiro	Manufacturing & commercial	100.00
Sociedade Tyreplus Brasil Ltda.	Full consolidation method	Rio de Janeiro	Commercial	100.00
Plantações Michelin da Bahia Ltda.	Full consolidation method	Rio de Janeiro	Miscellaneous	100.00
Plantações E. Michelin Ltda.	Full consolidation method	Rio de Janeiro	Miscellaneous	100.00
Sascar Tecnologia e Segurança Automotiva S.A.	Full consolidation method	Barueri	Miscellaneous	100.00
Seva Engenharia Eletrônica S.A.	Full consolidation method	Contagem	Miscellaneous	100.00
CVB Produtos Industriais Ltda.	Full consolidation method	São Paulo	Manufacturing	100.00
Camso Holding Brasil Ltda.	Full consolidation method	São Paulo	Financial	100.00
Camso Indústria de Produtos de Borracha Ltda.	Full consolidation method	Alvorada	Commercial	100.00
CHILE				
Michelin Chile Ltda.	Full consolidation method	Santiago	Commercial	100.00
Conveyor Services S.A.	Full consolidation method	Antofagasta	Manufacturing & commercial	100.00
Fenner International Chile Limitada	Full consolidation method	Las Condes	Financial	100.00
Michelin Specialty Materials Recovery SpA	Full consolidation method	Santiago	Manufacturing & commercial	100.00
CPS Conveyors Spa	Full consolidation method	Santiago	Commercial	100.00
COLOMBIA				
Industria Colombiana de Llantas S.A.	Full consolidation method	Bogotá	Commercial	99.96
ECUADOR				
Michelin del Ecuador S.A.	Full consolidation method	Quito	Commercial	100.00
PERU				
Michelin del Perú S.A.	Full consolidation method	Lima	Commercial	100.00
Conveyor Pulleys & Solutions S.A.C	Full consolidation method	Lima	Commercial	100.00
VENEZUELA				
Michelin Venezuela, S.A.	Equity method	Valencia	Commercial	100.00
SOUTHEAST ASIA/AUSTRALIA				
AUSTRALIA				
Michelin Australia Pty Ltd	Full consolidation method	Melbourne	Commercial	100.00
Klinge Holdings Pty Ltd	Full consolidation method	Brisbane	Miscellaneous	100.00
Hallite Seals Australia Pty Limited	Full consolidation method	Wetherill Park	Manufacturing & commercial	100.00

Companies	Consolidation method	Registered office	Type	% interest
Fenner Dunlop Australia Pty Limited				
Fenner (Pacific) Pty Limited	Full consolidation method	West Footscray	Financial	100.00
Fenner Australia Financing Pty Limited	Full consolidation method	West Footscray	Financial	100.00
Australian Conveyor Engineering Pty Limited	Full consolidation method	West Footscray	Manufacturing & commercial	100.00
Agile Maintenance Services Pty Limited	Full consolidation method	West Footscray	Financial	100.00
Fenner Investments Australia Limited Partnership	Full consolidation method	West Footscray	Financial	100.00
BBV Partnership	Full consolidation method	West Footscray	Manufacturing & commercial	100.00
Belle Banne Conveyor Services Pty Limited	Full consolidation method	West Footscray	Manufacturing & commercial	100.00
Bearcat Tyres Pty Ltd	Full consolidation method	Girraween	Commercial	100.00
Conveyor Products & Solutions Pty Ltd	Full consolidation method	Victoria	Manufacturing & commercial	100.00
Conveyor Pulleys & Solutions Pty Ltd	Full consolidation method	Victoria	Manufacturing & commercial	100.00
Wilvic Australia Pty Ltd	Full consolidation method	Victoria	Manufacturing & commercial	50.00
INDONESIA				
PT Michelin Indonesia	Full consolidation method	Jakarta	Commercial	100.00
PT Synthetic Rubber Indonesia	Full consolidation method	Jakarta	Manufacturing	55.00
PT Royal Lestari Utama	Full consolidation method	Jakarta	Miscellaneous	100.00
PT Lestari Asri Jaya	Full consolidation method	Jakarta	Miscellaneous	100.00
PT Multi Kusuma Cemerlang	Full consolidation method	Jakarta	Miscellaneous	100.00
PT Wanamukti Wisasa	Full consolidation method	Jakarta	Miscellaneous	100.00
PT Multistrada Arah Sarana Tbk	Full consolidation method	Bekasi	Manufacturing & commercial	99.64
PT Kawasan Industri Multistrada	Full consolidation method	Bekasi	Miscellaneous	99.63
PT Penta Artha Impressi	Equity method	Jakarta	Commercial	19.93
MALAYSIA				
Michelin Malaysia Sdn. Bhd.	Full consolidation method	Petaling Jaya	Commercial	100.00
Michelin Services (S.E.A.) Sdn. Bhd.	Full consolidation method	Petaling Jaya	Miscellaneous	100.00
NEW ZEALAND				
Tyreline Distributors Limited	Equity method	Hamilton	Commercial	25.00
Beau Ideal Limited	Equity method	Te Awamutu	Commercial	25.01
Camso New Zealand Limited	Full consolidation method	Auckland	Commercial	100.00
SINGAPORE				
Michelin Asia (Singapore) Co. Pte. Ltd.	Full consolidation method	Singapore	Commercial	100.00
Michelin Asia-Pacific Pte. Ltd.	Full consolidation method	Singapore	Miscellaneous	100.00
Michelin Asia-Pacific Import (SG) Pte. Ltd.	Full consolidation method	Singapore	Miscellaneous	100.00
Michelin Asia-Pacific Export (SG) Pte. Ltd.	Full consolidation method	Singapore	Miscellaneous	100.00
Michelin Asia-Pacific Import-Export (SG) Pte. Ltd.	Full consolidation method	Singapore	Miscellaneous	100.00
Société des Matières Premières Tropicales Pte. Ltd.	Full consolidation method	Singapore	Miscellaneous	100.00
Wine Advocate Pte. Ltd.	Full consolidation method	Singapore	Miscellaneous	100.00
Fenner Singapore Pte. Ltd.	Full consolidation method	Singapore	Financial	100.00
CDI Energy Products Pte. Ltd.	Full consolidation method	Singapore	Manufacturing & commercial	100.00
THAILAND				
Michelin Siam Company Limited	Full consolidation method	Bangkok	Manufacturing & commercial	100.00
Michelin Experience (E2A) Co., Ltd.	Full consolidation method	Bangkok	Commercial	49.00
Michelin Roh Co., Ltd.	Full consolidation method	Bangkok	Miscellaneous	100.00
NTeq Polymer Co., Ltd.	Equity method	Surat Thani	Miscellaneous	45.00
VIETNAM				
Michelin Vietnam Company Limited	Full consolidation method	Ho Chi Minh City	Commercial	100.00
Camso Vietnam Co., Ltd	Full consolidation method	Tan Uyen	Manufacturing	100.00

Companies	Consolidation method	Registered office	Type	% interest
CHINA				
CHINA				
Michelin Shenyang Tire Co., Ltd.	Full consolidation method	Shenyang	Manufacturing	100.00
Shanghai Michelin Tire Co., Ltd.	Full consolidation method	Shanghai	Manufacturing	100.00
Michelin Asia (Hong Kong) Limited	Full consolidation method	Hong Kong	Commercial	100.00
Michelin (China) Investment Co., Ltd.	Full consolidation method	Shanghai	Commercial	100.00
Shanghai Suisheng Information Technology Co., Ltd.	Full consolidation method	Shanghai	Commercial	100.00
Michelin Tire Research and Development Center (Shanghai) Co., Ltd.	Full consolidation method	Shanghai	Miscellaneous	100.00
Tyre Plus (Shanghai) Auto Accessories Trading Co., Ltd.	Full consolidation method	Shanghai	Commercial	100.00
Michelin (Shanghai) Aircraft Tires Trading Co., Ltd.	Full consolidation method	Shanghai	Commercial	100.00
DT Asia Holding Co., Limited	Equity method	Hong Kong	Commercial	40.00
Dawson Polymer Products (Shanghai) Company Limited	Full consolidation method	Shanghai	Manufacturing & commercial	100.00
Hallite Shanghai Company Limited	Full consolidation method	Shanghai	Manufacturing & commercial	100.00
Shanghai Fenner Conveyor Belting Company Limited	Full consolidation method	Shanghai	Manufacturing & commercial	92.46
Fenner Management (Shanghai) Company Limited	Full consolidation method	Shanghai	Manufacturing & commercial	100.00
Camso Rubber Products (Qingdao) Co., Ltd.	Full consolidation method	Qingdao	Manufacturing	100.00
Camso Enterprise Management (China) Co., Ltd.	Full consolidation method	Shanghai	Commercial	100.00
Wine Advocate (HK) Ltd.	Full consolidation method	Hong Kong	Miscellaneous	100.00
TAIWAN				
Michelin Tire Taiwan Co., Ltd.	Full consolidation method	Taipei	Commercial	100.00
EASTERN EUROPE				
RUSSIA				
Michelin Russian Tyre Manufacturing Company LLC	Full consolidation method	Davydovo	Manufacturing & commercial	100.00
Camso CIS LLC	Full consolidation method	Moscow	Commercial	100.00
UKRAINE				
Michelin Ukraine LLC	Full consolidation method	Kyiv	Commercial	100.00
JAPAN/KOREA				
JAPAN				
Nihon Michelin Tire Co., Ltd.	Full consolidation method	Tokyo	Commercial	100.00
Camso Japan Co., Ltd.	Full consolidation method	Yokohama	Commercial	100.00
SOUTH KOREA				
Michelin Korea Co., Ltd.	Full consolidation method	Seoul	Commercial	100.00

NOTE 37 STATUTORY AUDITORS' FEES

	Deloitte				PricewaterhouseCoopers			
	Statutory Auditor (Deloitte & Associés)		Network		Statutory Auditor (PricewaterhouseCoopers Audit)		Network	
(in € thousands)	Amount	%	Amount	%	Amount	%	Amount	%
STATUTORY AUDIT AND HALF-YEAR REVIEW OF THE INDIVIDUAL AND CONSOLIDATED FINANCIAL STATEMENTS								
• Issuer	537	33%	-	-	527	32%	-	-
• Fully consolidated subsidiaries	1,091	67%	3,757	100%	1,135	68%	4,165	100%
Sub-total	**1,628**	**100%**	**3,757**	**100%**	**1,662**	**100%**	**4,165**	**100%**
NON-AUDIT SERVICES								
• Issuer(1)	15	100%	-	-	146	86%	-	-
• Fully consolidated subsidiaries(2)	-	0%	1,320	100%	23	14%	435	100%
Sub-total	**15**	**100%**	**1,320**	**100%**	**169**	**100%**	**435**	**100%**
TOTAL	**1,643**		**5,077**		**1,831**		**4,600**	

(1) These services consist mainly of an independent third-party body engagement by PricewaterhouseCoopers Audit.

(2) These services correspond for the most part to procedures performed in connection with acquisitions or planned acquisitions, diagnostic reviews, tax compliance reviews and certifications issued at the request of the audited companies.

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