RESULTS 2021

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PRESS RELEASE

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PRESS RELEASE

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COMPAGNIE GÉNÉRALE DES ÉTABLISSEMENTS MICHELIN

The Michelin Group delivered segment operating income of €2,966 million and a margin back in line with 2019, at 12.5%, demonstrating once again its strength and business model resilience.

- Sales rose by 16.3% to €23,795 million and segment operating income stood at €2,966 million, or 12.5% of sales:
  - tire volumes up 11.8% and non-tire sales up 7.7%,
  - very favorable Original Equipment/Replacement business mix in the Automotive segment, with market share gains in 18-inch and larger tires confirming the Group's leadership in technological innovation,
  - dynamic price management in the non-indexed businesses, leveraging the brand's pricing power and offsetting cost inflation factors,
  - specialty businesses hit harder by labor shortages, supply chain disruptions and cost inflation.
- €1.5 billion in free cash flow before acquisitions, or €1.8 billion in structural free cash flow(1) adjusted for higher raw materials costs.
- The Group's performance in 2021 was in line with its "Michelin in Motion" strategic plan's 2030 objectives set for each of its three pillars: People, Profit, Planet:
  - percentage of women in management positions increased to 28.9%,
  - ongoing integration of acquired companies, generating €41 million in additional synergies and bringing the annualized total to €122 million,
  - sustained deployment of the simplification and competitiveness plans,
  - a 10.3% return on capital employed,
  - environmental commitments strengthened with the signing of the Race to Zero agreement.
- €1,845 million in net income, up €1,220 million, and a recommended dividend of €4.50 per share.

  Florent Menegaux, Managing Chairman, said: "In 2021, Michelin delivered very good results in extremely difficult conditions, while maintaining the priority to protect its employees. I would like to warmly thank all our employees who, every day, are successfully meeting the many challenges we face. In line with our drive to share the value created by our Group, we will reward their dedication in these exceptional circumstances, in particular through a substantial increase in variable compensation for the year. With these 2021 results, our Group has once again demonstrated its strength and resilience. We are confidently looking forward to the continued deployment of our Michelin in Motion strategy."
- Outlook for 2022:

  In 2022, in a still highly unsettled environment, Passenger car and Light truck tire markets are expected to expand by 0% to 4% over the year, Truck tire markets by 1% to 5%, and Specialty markets by 6% to 10%.

  In this market scenario, and barring any new systemic impact from Covid-19(2), Michelin's objective is to report full-year segment operating income in excess of €3.2 billion at constant exchange rates(3) and structural free cash flow of more than €1.2 billion.

(1) Structural free cash flow corresponds to free cash flow before acquisitions, adjusted for the impact of changes in raw material costs on trade payables, trade receivables and inventories.

(2) Serious supply chain disruptions or restrictions on freedom of movement that would result in a significant drop in the tire markets.

(3) See 2021 results presentation available on www.michelin.com

(in € millions)	2021	2020	2019
Sales	23,795	20,469	24,135
Segment operating income	2,966	1,878	3,009
Segment operating margin	12.5%	9.2%	12.5%
Automotive and related distribution	13.7%	8.3%	11.1%
Road transportation and and related distribution	9.6%	5.6%	9.3%
Specialty businesses and related distribution	13.0%	14.8%	18.7%
Other operating income and expenses	(189)	(475)	(318)
Operating income	2,777	1,403	2,691
Net income	1,845	625	1,730
Earnings per share	€10.31	€3.52	€9.69
Dividend for the year (per share)	€4.50(5)	€2.30	€2.00
Segment EBITDA	4,700	3,631	4,763
Capital expenditure	1,705	1,221	1,801
Net debt	2,789	3,531	5,184
Gearing	18.6%	28.0%	39.2%
Provisions for post-employment benefit obligations	3,362	3,700	3,873
Free cash flow(1)	1,357	2,004	1,142
Structural free cash flow(2)	1,793	2,010	1,615
ROCE(3)	10.3%	6.0%	10.0%
Employees on payroll(4)	124,760	123,600	127,200

(1) 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.
(2) Structural free cash flow corresponds to free cash flow before acquisitions, adjusted for the impact of changes in raw material prices on trade payables, trade receivables and inventories.
(3) For the ROCE calculation, amortization of acquired intangible assets and Group's share of profit/(loss) from equity-accounted companies are added to the segment operating income. The ROCE is calculated after tax, at a standard rate of 25%.
(4) At period-end.
(5) Recommended dividend.

IMPACT OF COVID-19 ON THE GROUP'S BUSINESS IN 2021

In 2021, the world transitioned from a state of sudden shock and an economy on life support from governments and central banks to a possible "new normal", to which the Michelin Group successfully adapted thanks to the strength of its assets and the unflagging commitment of its teams.

Following on from the initiatives undertaken in 2020, the Group continued to focus on its two core priorities: protecting the health and safety of its employees and partners and doing everything necessary to ensure business continuity.

The Group also took care to ensure strict compliance with national or local work-from-home directives, guaranteeing that every employee concerned had the resources required to perform his or her tasks remotely. Beside these Covid-related arrangements, Michelin has signed multi-year agreements with the unions that would offer employees in compatible jobs, and in compliance with local legislation, the opportunity of contractualizing, over time, their working from home either occasionally or on a regular basis.

In addition to the sales lost to the temporary restrictions on mobility during the year, the Covid-19 crisis had a significantly adverse impact on the Group's business in 2021.

Supply chains were disrupted, primarily due to severe constraints in the maritime shipping industry. The robust upturn in global demand, combined with a shortage of cargo space (many shipowners had taken advantage of the 2020 decline in business to start upgrading their fleets) and the closure of certain ports due to Covid-19, caused extensive slowdowns across the supply chain, tightening raw material supplies and crimping the Group's ability to ship from some of its plants.

The year was also shaped by labor shortages that impacted the manufacturing operations of both the Group and its suppliers. While government financial support may have temporarily delayed the return to work, it is also possible that, in a more structural way, these hiring difficulties arise from certain Covid-related social changes that have created a new relationship to work.

In the face of these severe disruptions, Michelin never ceased operating throughout the year, attesting to the soundness and efficiency of its business continuity procedures, particularly those concerning business interruption risks in the production plants and supply continuity risks.

Lastly, the strong rebound in global demand in 2021 spurred a sharp run-up in raw material and energy costs, in addition to the steep increase in supply chain costs. Over the full year, the Group was faced with approximately €1.2 billion in additional costs, which it successfully offset with productivity gains, assertive pricing management and a higher value product mix.

These spiraling costs and supply chain disruptions have not undermined Michelin's strategic objectives nor the resources deployed to meet them. Convinced of the validity of its strategic model, the Group has gained in strength during the crisis and reaffirms that its "All Sustainable" vision represents the keystone of its future performance.

MARKET REVIEW

PASSENGER CAR AND LIGHT TRUCK TIRES

2021/2020 *(in number of tires)*	Western & Central Europe*	CIS	North& Central America	South America	China	Asia (excluding India & China)	Africa/ India/ Middle East	Total
Original Equipment	-5%	+6%	0%	+12%	+3%	+2%	+16%	+2%
Replacement	+10%	+15%	+14%	+27%	+3%	+5%	+17%	+11%

* *Including Turkey.*

Fourth-quarter 2021/2020 *(in number of tires)*	Western & Central Europe*	CIS	North& Central America	South America	China	Asia (excluding India & China)	Africa/ India/ Middle East	Total
Original Equipment	-27%	-18%	-17%	-16%	-4%	-10%	-30%	-14%
Replacement	+3%	+2%	-7%	-1%	-4%	+2%	0%	-1%

* *Including Turkey.*

The global Original Equipment and Replacement **Passenger car and Light truck tire** market rose by 9% in number of tires sold in 2021, but ended the year 4% lower than in 2019.

Original Equipment

- After expanding a strong 28% in the first half due to low comparatives (caused by OEM plant shutdowns in first-half 2020), Original Equipment tire demand was heavily impacted in the second half by the worsening global shortage of semiconductors, which led to a 17% decline for the period. By quarter, demand fell a steep 19% in the third before recovering slightly to a 14% contraction in the fourth, following a relative easing of chip shortages in North America and China.
- In all, the global Original Equipment tire market ended 2021 down 15% on 2019.
- In every region, market growth was lifted by favorable comparatives in the first half and impacted by global semiconductor shortages in the second. By end-2021, only the Chinese market had returned more or less to 2019 levels, with just a 1% decline for the year. Elsewhere, markets contracted by 17% in the rest of Asia, 21% in North America and 27% in Western Europe.

Replacement

- After surging 27% off of very favorable comparatives in the first half, global Replacement tire demand was stable year-on-year in the second six-month period and ended the year on a par with 2019.
- After rebounding a sharp 22% in the first half and declining by a slight 2% in the third quarter, tire demand in **Europe (excluding the CIS)** rose by 3% in the fourth quarter to end the year up 10% on 2020. The fourth quarter saw strong market growth in France (up 8%), Germany (up 6%) and Central Europe. Demand in the United Kingdom fell 10% from the prior-year period, which had been buoyed by the massive buildup of dealer inventory in fourth-quarter 2020 ahead of Brexit on January 1, 2021. The Spanish and Italian markets slipped 2% and 3% respectively over the period. In all, the market ended the year at close to 2019 levels in most countries, except Turkey (up 19%) and Italy (down 10%).
- In the **CIS**, demand surged 21% in the first half and remained on an upward trend, delivering a 10% gain in the second. By year-end, the market was up 15% on 2020 and a slight 2% ahead of 2019.
- **In North and Central America**, demand remained very high in the first nine months, ending the period up 23% on 2020 and 7% on 2019, supported by favorable comparatives and dealer inventory rebuilding. It turned down in the final three months, losing 7% in comparison with the prior-year period, when dealer inventories rose on speculative buying ahead of possible new US duties on tires imported from South Korea, Thailand, Vietnam and Taiwan. In all, the market ended the year up 14% on 2020 and 4% ahead of 2019.
- Demand in **South America** climbed a steep 39% over the first nine months, reflecting the impact of Covid-19 on the first three quarters of 2020. The market then flattened out over the final three months to end the year up 27% on 2020 and a slight 2% ahead of 2019.

- After rebounding 15% in the first half thanks to very favorable first-quarter comparatives, demand in **China** moved back in line with 2019 in the second six months of the year. However, it declined 7% compared with second-half 2020, which had seen a particularly robust 8% rebound as the country emerged from lockdown. In all, the market expanded by 3% over the full year, but remained a slight 2% below its 2019 level.
- **In Asia (excluding China and India)**, demand rebounded by 13% in the first half but was hard hit by Covid-19 in the third quarter, with declines of 5% overall and of 42% in Thailand, 38% in Vietnam and 14% in Indonesia. It recovered somewhat in the final three months, gaining 2% to end the year up 5% on 2020, but still a steep 6% behind 2019.
- Markets in **Africa, India and the Middle East** rebounded sharply off of very favorable prior-year comparatives in the first half, with growth of 36% overall and of 64% in India. They rose a further 6% in the third quarter before leveling out in the fourth, leading to a 17% increase for the year, but a 3% decline compared to 2019.

TRUCK TIRES (RADIAL AND BIAS)

2021/2020 *(in number of tires)*	**Western & Central Europe***	**CIS**	**North& Central America**	**South America**	**China**	**Asia (excluding India & China)**	**Africa/ India/ Middle East**	**Total**
Original Equipment	+25%	+20%	+25%	+35%	-16%	+16%	+28%	-2%
Replacement	+12%	+3%	+21%	+19%	-7%	+6%	+11%	+7%

* *Including Turkey.*

Fourth-quarter 2021/2020 *(in number of tires)*	**Western & Centra Europe***	**CIS**	**North& Central America**	**South America**	**China**	**Asia (excluding India & China)**	**Africa/ India/ Middle East**	**Total**
Original Equipment	+4%	+14%	+6%	+8%	-49%	+11%	-12%	-30%
Replacement	0%	+12%	+4%	0%	-28%	+2%	+7%	-7%

* *Including Turkey.*

The number of new **Truck tires** sold worldwide increased by 4% in 2021. Demand rose in every region except China, where it fell 11% from prior-year levels, which had been lifted exceptionally high by buying ahead of the implementation of the China 6 emissions standard.

Original Equipment

- The global Original Equipment Truck tire market, as measured by the number of new tires sold, contracted by 2% year-on-year in 2021, moving back in line with 2019 levels (up 1%). These overall figures mask a marked contrast between China and the other regions.
- **In Europe (excluding the CIS) and the Americas**, the robust economic recovery and driver shortages prompted trucking companies to massively upgrade their fleets. This drove strong growth in demand in these regions over the year, with gains of 25% in North America and Europe and of 35% in South America.
- By year-end, markets had exceeded their 2019 levels by 2% in **Europe**, but fell a significant 10% short in North America, where 2019 had been an exceptionally strong year.
- After rebounding a vigorous 88% in the first quarter, demand in **China** was dampened over the rest of the year by the highly unfavorable comparison with the 2020 period, which saw massive buying ahead of implementation of the China 6 emissions standard.

  As a result, the market ended the year down 16%, but remained 11% higher than in 2019.
- Markets in **the rest of the world** expanded during the year, with gains of 16% in Asia excluding China and of 28% in the Africa/India/Middle East region, but still fell short of their 2019 levels, by 16% in Asia excluding China and by 34% in the Africa/India/Middle East region.

Replacement

- After rebounding a firm 25% from favorable comparatives in the first half, demand for Replacement tires retreated by 6% in the second six months, feeding through to a 7% increase in the market for the year, but a 3% decline compared to 2019. These overall figures mask a marked contrast between China and the other regions.
- After rebounding a solid 28% in the first half, demand in **Western and Central Europe** leveled off in the second six months, with gains of 12% in Germany and of 19% in the Nordic countries offset by flat growth in France and Spain and a 7% decline in Central Europe.

  Over the full year, the market rose by 12% on 2020 and by 9% compared with 2019 (including an 18% improvement in Turkey).

- Demand in **North and Central America** remained very robust, rising 9% after rebounding by 35% in the first six months.

  Buoyed by the strong economic recovery, it ended the year up 21% on 2020 and 18% on 2019.
- Markets in **South America** tracked North American trends, with a 33% rebound in the first half and a sustained 7% increase in the second. Supported by the strong economic recovery, demand ended the year up 19% on 2020 and 10% on 2019.

SPECIALTY TIRES

- **Mining tires:** despite the pervasive disruption in global supply chains, demand for surface mining tires rose over the full year, with an acceleration in the second half.
- **Agricultural and Construction tires:** farm machinery tire markets climbed sharply year-on-year, with a very strong cyclical upturn in Original Equipment sales. The Construction and Infrastructure tire markets maintained their robust recovery, which was more pronounced in the Original Equipment segment, while the Infrastructure tire market was lifted by the growth in the construction industry.
- **Two-wheel tires:** despite a mid-year period dampened by Covid-19 in Asian markets, Two-wheel tire demand remained strong across every geography and segment.
- **Aircraft tires:** in a very turbulent environment, aircraft tire markets rebounded in line with the uptick in air traffic, Covid-19 vaccinations and border reopenings. Demand in the Military and General Aviation segments continued to hold up well over the period.
- **Conveyor belts:** the mining conveyor belt market turned in a mixed performance. Demand in Australia turned slightly upwards after suffering from the restrictions on China-bound coal exports, while the Services and Engineering segments were adversely impacted by Covid-19. In North America, the market rebounded at year-end in both the mining and the industrial segments.
- **Specialty polymers:** specialty polymer markets rose overall during the year, led by the economic recovery, particularly in the infrastructure and energy industries.

2021 SALES AND RESULTS

SALES

Sales stood at €23,795 million for the year ended December 31, 2021, up 16.3% from 2020 due to the combined impact of the following factors:

- the strong 11.8% rebound in tire volumes, as demand turned sharply upward in every tire market. Replacement tire sales were also lifted by dealer inventory rebuilding throughout the year;
- a 4.5% or €921 million increase from the price effect. At a time of sharply rising costs, the Group's assertive pricing management in the non-indexed businesses enabled it to offset their specific cost inflation factors;
- a 1.6% or €330 million increase from the positive mix effect. The collapse in automotive output caused by the semiconductor shortage fed through to a very favorable sales mix, with a greater percentage of Replacement sales in the Automotive segment. The mix effect also reflects the sustained success of the MICHELIN brand's premium strategy, particularly the market share gains in the 18-inch and larger Passenger car tire segment;
- the 7.7% increase in aggregate sales by the non-tire businesses, driven by Fenner and fleet management services;
- the 1.9% negative currency effect, primarily stemming from the declines in the US dollar and the Turkish lira against the euro;
- a slight 0.2% decrease from changes in the scope of consolidation following the removal of Solesis and the printing, publishing and marketing businesses associated with Maps & Guides for France.

RESULTS

Segment operating income amounted to €2,966 million or 12.5% of sales, versus €1,878 million and 9.2% in 2020.

The change in segment operating income primarily reflected:

- a €6 million decrease from changes in the scope of consolidation following the removal of Solesis and the printing, publishing and marketing businesses associated with Maps & Guides for France;
- a €1,389 million increase from the sharp 11.8% rebound in tire volumes sold and the resulting improvement in fixed cost absorption;
- a robust €1,251 million increase from the tire price-mix effect, led by assertive pricing management in the non-indexed businesses, sustained enhancement of the product mix and a favorable business mix;
- a €574 million decrease from higher raw material prices and related transportation costs;
- a €622 decrease from the Group's manufacturing and logistics performance, reflecting the steep run-up in energy and supply chain costs;
- a €181 million decrease from higher tire SG&A expenses, which remained lower than in 2019;
- a €13 million increase from the improvement in segment operating income from the non-tire businesses;
- a €46 million decrease from other factors, including Covid-19-related costs, which were down €63 million for the year;
- a €136 million unfavorable currency effect.

Other operating income and expenses amounted to a net expense of €189 million, corresponding to the amortization of intangible assets acquired in business combinations (€78 million), restructuring costs (€86 million) and impairment losses on non-current assets (€116 million), partially offset by the €114 million in proceeds from the sale of a stake in Solesis.

In all, net income for the year came to €1,845 million, versus €625 million in 2020.

NET FINANCIAL POSITION

Free cash flow ended the year at €1,357 million, a €647 million decline on 2020 as the vibrant €1,069 million growth in EBITDA, led by the rebound in business in 2021, was offset by the expected upturn in working capital requirement, which rose by €824 million in 2021 (including a €1,106 million increase in inventories) compared with a decline of €700 million in 2020. Gearing stood at 18.6% at December 31, 2021, corresponding to net debt of €2,789 million, down €742 million from one year earlier.

SEGMENT INFORMATION

	Sales		Segment operating income		Segment operating margin	
(in € millions)	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
Automotive and related distribution	11,998	10,103	1,643	839	13.7%	8.3%
Road transportation and related distribution	6,233	5,373	599	302	9.6%	5.6%
Specialty businesses and related distribution	5,564	4,993	724	737	13.0%	14.8%
Group	23,795	20,469	2,966	1,878	12.5%	9.2%

Automotive and related distribution

Sales in the Automotive and related distribution reporting segment increased by 18.8% to €11,998 million, from €10,103 million in 2020.

Segment operating income amounted to €1,643 million or 13.7% of sales, versus €839 million and 8.3% in 2020.

The robust improvement was primarily led by the 12.3% growth in volumes, which outpaced the market. In addition, inflationary factors driving up the cost of sales were offset by an assertive pricing policy, a highly favorable business mix due to the greater percentage of Replacement sales in the segment total and a product mix enhanced by share gains in the 18-inch and larger tire market.

Road transportation and related distribution

Sales in the Road transportation and related distribution reporting segment climbed 16,0% year-on-year, to €6,233 million from €5,373 million in 2020.

Segment operating income came to €599 million or 9.6% of sales, compared with €302 million in 2020.

In sharply recovering markets, with the exception of China, segment volumes rose by 12.9% over the year. A selective marketing strategy with a sharper focus on the MICHELIN brand and ambitious pricing policies helped to offset the inflationary factors driving up the cost of sales. The fleet management operations remained on a growth trajectory.

Specialty businesses and related distribution

Sales in the Specialty businesses and related distribution segment rose by 11.4% in 2021, to €5,564 million from €4,993 million the year before.

Segment operating income amounted to €724 million or 13% of sales, versus €737 million and 14.8% the year before. With a 9.8% increase in volumes, the Specialty businesses were more impacted than the other segments by labor shortages, supply chain disruptions and rising raw materials, energy and supply chain costs.

Agricultural and Construction tires: group sales were lifted by the rebound in demand for Agricultural tires and tracks and Construction tires, which was especially strong in the Original Equipment segment.

Surface mining tires: the surface mining tire business remained severely disrupted by difficulties arising from labor shortages and constricted inbound and outbound supply chains, which prevented the Group from fully meeting still robust customer demand.

Two-wheel tires: sales rose sharply over the year, impelled by (i) fast-growing demand, (ii) market share gains, particularly in the Original Equipment segment, and (iii) the appeal of personal means of transportation in mature markets.

Aircraft tires: business improved considerably over the year, reflecting the somewhat shaky, yet real upturn in air traffic, as well as successful sales in the General Aviation segment and resilience in the Military business.

Fenner's **conveyor belt** business generally held firm, with a strong rebound in North America in the fourth quarter. End-2021 order backlog was very high.

THE MICHELIN IN MOTION STRATEGIC PLAN: 2023 OBJECTIVES

The Group confirms its targets:

- more than €3.3 billion in 2023 segment operating income at January 2021 exchange rates;
- a 13.5% segment operating margin in 2023, of which:
  - >12% in Automotive and related distribution,
  - >10% in Road transportation and related distribution,
  - >17% in Specialty businesses and related distribution,
- a more than 10.5% ROCE;
- €6.3 billion in cumulative 2020-2023 structural free cash flow, including capex outlays over the 2022-2023 period to make up for postponements in 2020-2021.

The Group is continuing to deploy its simplification and competitiveness plans, as announced at the Capital Markets Day on April 8, 2021, but with inflation running well above the recent-year average, the delivered savings will not be enough to offset rising costs.

THE MICHELIN IN MOTION STRATEGIC PLAN: 2030 AMBITIONS

PEOPLE OBJECTIVES

	Indicator	2019	2020	2021	Target for 2030
Set the global standard in employee engagement	Engagement rate	80%	82%	80%	>85%
Set the global standard in workplace safety	TCIR(1)	1,43	1,19	1,29	<0.5
Set the standard for employee diversity and inclusion	IMDI(2)		62	67	80/100 points
Lead the industry in creating customer value	Partner NPS	38,0	40,5	38,9	up 10 pts vs. 2020 to 48
	End customer NPS(3)				up 5 pts vs. 2020

(1) Total Case Incident Rate: the number of accidents and cases of occupational illness recorded per 200,000 hours worked.
(2) Diversities and Inclusion Management Index.
(3) Two composite indicators will be created:
- The "Partner" NPS, a weighted average of the OEM and dealer clusters; and
- The "End Customer" NPS, a weighted average of the retail and business customer clusters. In the case of the latter, operational difficulties made it impossible to calculate for 2021. Once the indicator has been published, the Group's objective will be adjusted.

Set the global standard in employee engagement

The 2020 engagement rate expressed the gratitude of Michelin Group employees to the company and its managers for their sharp focus on protecting everyone's safety and health.

In 2021, the persistent health crisis, extensive supply chain disruptions and resulting changes in their internal and external environments put intense pressure on employees, particularly in the production plants, across the supply chain, in the customer service centers and other front-line operations.

Although lower than in 2020, the overall rate of 80% remains high.

The 2030 engagement rate target remains 85%.

Set the global standard in workplace safety

In 2021, Michelin's head office safety team conducted an in-depth analysis of the most serious accidents over a two-year period, whose findings were shared with the Group Executive Committee and Manufacturing Department executives. The resulting lessons are now being used to define areas for action in 2022 and to deploy measures to prevent recurrences, thereby lowering the TCIR, further instilling the culture of safety, and building the safety and ergonomics roadmap to meet the Group's objectives for 2030.

Set the global standard for employee diversity and inclusion

Attesting to the Group's commitment to this objective, all the metrics (gender balance, identity, multi-national management, disability, equal opportunity) in the IMDI diversity and inclusion indicator improved in 2021, raising the aggregate score to 67/100 from 62. To support wider acceptance of diversity across the Group, a variety of projects were undertaken during the year, including a half-day training course on bias and stereotypes attended by thousands of employees in Europe and the United States, the appointment of disability ambassadors in eight geographies and a program to hire and retain disabled employees at the Chennai plant in India with the NGO Handicap International. In the case of gender diversity, the percentage of women in management positions continued to climb in 2021, to 28.9% by year-end. Management also became increasingly multi-national in the growth regions, with the percentage of local top managers rising to 83% from 79%, and in the cohort of top 100 executives, where it improved to 35% from 30% over the year.

Lead the industry in creating customer value

Despite significant improvements in the OEM NPS[1], particularly in the Automotive segment, the Partner NPS indicator declined overall due to the steep fall in the Dealer NPS, which was attributable to supply chain disruptions, particularly in regions where the Group's market share is robust.

- This was the case in North America, where NPS declined significantly, notably in the Passenger car and Light truck Replacement tire segments.
- The frequent, major price increases introduced to offset inflation, particularly in emerging economies.

In the Automotive Original Equipment segment, NPSs improved across every customer cluster. Customer comments show that professionalism, superior products, and quality remain the Group's core strengths. They are also increasingly positive about two issues that have been identified for improvement: responsiveness and efficiency.

PROFIT OBJECTIVES

	Indicator	2019	2020	2021	Target for 2030
Drive significant growth in sales, particularly in segments other than tire manufacturing and distribution	Average annual growth in sales, 2023 to 2030	€24.1bn	€20.5bn	€23.8bn	CAGR 5%
Continuously create value	ROCE[1]	10,0%	6,0%	10,3%	>10.5% from 2023
Maintain the strength of the MICHELIN brand	Brand vitality indicator[2]		58	68	up 5 pts vs. 2021
Maintain the sustained pace of product and service innovation	Product/service vitality indicator[3]	33%	33%	31%	>30%

(1) Consolidated ROCE is calculated after adding back (i) goodwill, acquired intangible assets and investments in equity-accounted companies to economic assets; and (ii) amortization of acquired intangible assets and the Group's share of profit from and loans to equity-accounted companies to after-tax earnings.

(2) Composite indicator used to measure the brand's vitality.

(3) Percentage of sales from products and services introduced in the last three years.

Drive significant growth in sales in segments other than tire manufacturing and related distribution

In 2021, the Group reported a robust 16.3% increase in sales, led by the rebound in demand, market share gains, a dynamic pricing policy and the 7.7% growth in its non-tire businesses. The Group is continuing to deploy its growth strategy in new ecosystems around and beyond tires. In 2021, this expansion was driven primarily by sales of precision polymers and fleet management solutions.

Continuously create value

The Group is committed to achieving at least three points of value creation each year from 2023 onwards. Based on a weighted average cost of capital of 7.5%, this implies at least a 10.5% annual return on capital employed. In 2021, the Group revised the definition of its ROCE indicator by adding back goodwill, acquired intangible assets and investments in and loans to equity-accounted companies to economic assets. Consolidated ROCE stood at 10.3% in 2021, compared to 6% in 2020 (which is not material due to the disruptions caused by the emergence of Covid-19) and 10.0% in 2019. The gain since 2019, which reflects the improvements in both the Group's profitability and its optimization of capital employed, is perfectly in line with the target of 10.5% in 2023.

Maintain the strength of the MICHELIN brand

The brand vitality indicator rose sharply in 2021, reflecting the rollout of the MICHELIN brand campaign and a weaker performance by the other brands tracked in the panel.

Maintain the sustained pace of product and service innovation:

In line with objectives, the Group maintained its product/service vitality indicator above 30% in 2021, with 31% of its products and services marketed during the year having been introduced in the last three years. The Group's ability to constantly refresh and improve its offering is illustrated by the launch of the Pilot Sport EV tire engineered for premium electric vehicles, whose very low rolling resistance extends range without sacrificing any other performance features.

(1) Net Promoter Score.

PLANET OBJECTIVES

	Indicator	2019	2020	2021	Target for 2030
Achieve carbon neutrality in manufacturing and energy use by 2050	Scope 1 and 2 CO_2 emissions	-24.8%	-36.5%	-29%	down 50% vs. 2010
Help achieve carbon neutrality in use	Product/tire energy efficiency (Scope 3)		100	100,5	up 10% vs. 2020
Set the global standard for the environmental footprint of manufacturing facilities	i-MEP(1)		100	92,6	down one-third vs. 2020
Ensure that tires are made entirely of sustainable materials	Sustainable materials rate	26%	28%	29%	40%

(1) *The "industrial - Michelin Environmental Performance" (i-MEP) indicator will be used to track the environmental impacts of the Group's manufacturing operations over the next ten years. It will make these impacts easier to understand by focusing on five priority areas: energy use, CO_2 emissions, organic solvent use, water withdrawals, and waste production. The i-MEP is described in more detail in the methodological note in section 4 of the 2020 URD.*

Achieve carbon neutrality in manufacturing and energy use by 2050

The 2021 i-MEP score indicates a sustained reduction in CO_2 emissions, supported by the robustness of the energy efficiency improvement initiatives that have restored performance to 2019 levels despite the impact of the Covid-19 crisis and the inclusion of the third synthetic rubber production plant. In addition, the percentage of renewable energy in the Group's total use rose to 18% from 13% in 2019, reflecting the installation of photovoltaic panels at several plants and the purchase of electricity from certified renewable sources in Brazil and Serbia. The Group's medium-term objectives will be supported by a larger capital expenditure budget averaging €60 million a year. By 2030, all the technological levers identified in the roadmap will make it possible to meet the objective.

Help achieve carbon neutrality in use

A number of new tires introduced in 2021 deliver significant gains in energy efficiency, such as the MICHELIN E-Primacy and the MICHELIN CrossClimate 2 for Passenger cars and the MICHELIN X Multi Energy D for trucks and the 275/70R22.5 MICHELIN X Incity EV Z for electric buses. The projects now under way have put the roadmap on track to meet the target of a 10% gain in energy efficiency by 2030.

Set the global standard for the environmental footprint of manufacturing facilities

The first year of the Group's new environmental indicator revealed better-than-expected improvements in all five of its components, even as output rose over the period. Water withdrawals, for example, were reduced by 7%, notably by deploying water recycling and reuse solutions at a number of plants across the Group. These results show that the indicator has got off to a good start in meeting the target of a one-third reduction by 2030.

Ensure that tires are made entirely of sustainable materials

Michelin's indicator for the year was in line with the roadmap to reach 40% sustainable materials in Group tires by 2030. Due to the nature of the issues addressed, growth in this percentage has not been nor will be linear over the indicator's time frame.

In 2021, improvements were delivered on schedule in the maturity of specific technologies in Group R&D projects and in the traceability of certain supply chains with our suppliers. These initiatives did not yet have a material impact on tonnages used in 2021, as measured by the indicator.

VALUING THE COST OF NEGATIVE EXTERNALITIES

(in € millions)	
2019	330
▶ Increase in the internal CO_2 price, to €100 per ton from €58	176
2019 restated	506
▶ Change in Scope 1 and Scope 2 CO_2 emissions	- 15
▶ Change in Scope 3 CO_2 emissions from the supply change, excluding the impact of disruptions in 2021	- 16
▶ Impact of 2021 supply chain disruptions on Scope 3 CO_2 emissions	37
▶ Change in water withdrawals	- 2
▶ Change in volatile organic compound emissions	- 2
2021	508
2023 TARGET (RESTATED WITH A CO_2 PRICE OF €100/T)	**467**

In 2020, as part of its All Sustainable strategy, Michelin began translating its environmental impacts into euros by valuing (i) its CO_2 emissions from all of Scopes 1 and 2 and part of Scope 3 (upstream and downstream transportation and distribution); (ii) its volatile organic compound (VOC) emissions; and (iii) its water withdrawals. This process is designed to facilitate the representation of environmental issues, enhance transparency and provide a valuation method for use in assessing the performance of Group units or during acquisitions. The levers to reduce these impacts have been clearly identified.

A reduction from around €330 million in 2019 to around €300 million in 2023 was announced at the Capital Markets Day on April 8, 2021.

In response to the sharp run-up in carbon quota prices on the European market in late 2021, Michelin raised the cost per ton of CO2 used to value its emissions to €100. As a result, the total cost of externalities in 2019 is now valued at €506 million. In 2021, the total cost of valued externalities stood at €508 million, up just 0.4% on the revised 2019 figure. In response to supply chain disruptions, the Group occasionally had to resort to more costly workarounds on an as-needed basis, which had an adverse impact on CO_2 emissions for the year. Nevertheless, the underlying progress made in reducing each externality puts the Group firmly on track to meet its 2023 targets.

MICHELIN'S "ALL SUSTAINABLE" VISION

BIODIVERSITY

Biodiversity commitments for 2030: In 2021, the Group reaffirmed its commitment to attenuating the impact of its operations across the value chain by setting new biodiversity targets for 2030 as part of the Act4nature international initiative. As part of the "All Sustainable" approach, the new targets cover three areas: research and development (in particular by addressing biodiversity in lifecycle assessments), raw materials and production facilities.

NATURAL RUBBER

In addition to flagship projects in support of sustainable natural rubber production, such as the Michelin Ouro Verde (Green Gold) project in Bahia, Brazil, Michelin is pursuing its commitment through new projects:

- Supporting Indonesian natural rubber producers: Michelin and Porsche have broadened their partnership to sustainable natural rubber with a four-year program to train Indonesian smallholders in responsible labor and environmental practices, with the ultimate goal of improving living conditions for them and their families.

  This is the first natural rubber project based on the findings of the Environmental, Social and Governance (ESG) risk mapping exercise conducted with the RubberWay™ application, which is now being used across the supply chain by smallholders and their partners, a natural rubber processor, a tire manufacturer and a car manufacturer with the support of a local non-governmental organization.
- Developing agroforestry practices in Thailand to support sustainable rubber tree farming: Michelin is funding a project run by the Global Platform for Sustainable Natural Rubber (GPSNR[1]) in Thailand that is helping small rubber producers diversify their sources of income with environmentally beneficial agroforestry practices. The three-year project is designed to provide additional income for smallholders, while reducing the use of agrochemical inputs, enhancing carbon sequestration and improving biodiversity.

(1) Global Platform for Sustainable Natural Rubber.

- Increasing natural rubber harvests in the state of Amazonas, Brazil: Supported by WWF Brazil and the Michelin Corporate Foundation, this project is focused on increasing natural rubber harvests in the Brazilian state of Amazonas, while preserving the forest and supporting the development of communities in the Amazon. Over the next three years, it expects to generate a positive economic impact for 3,800 families by managing 6.8 million hectares in 14 Conservation Units in the state. The production of 700 tons of rubber will drive growth in the local economy while respecting the defined social and environmental standards.
- Encouraging natural rubber production and supporting farmers in Africa through SIPH, Africa's leading natural rubber producer with nine processing plants and more than 60,000 hectares of plantations in Côte d'Ivoire, Ghana, Nigeria and Liberia. As a founding member of the Global Platform for Sustainable Natural Rubber (GPSNR), SIPH supports the development of village plantations and trains nearly 90,000 smallholders a year in best agricultural practices, workplace health and safety and environmental issues. The company is also well respected for its social outreach, with the enrollment of more than 12,000 students in its 47 schools and the creation of 37 healthcare centers.

NON-FINANCIAL RATINGS

To assess its Environmental, Social and Governmental (ESG) performance as objectively as possible, the Michelin Group tracks the ratings and scores assigned to it by the leading internationally recognized non-financial rating agencies.

Their 2021 ratings attest to the progress made by the Group:

- **VIGEO EIRIS**: Michelin was once again awarded the highest A1+ ESG Rating by Vigeo Eiris (Moody's), with a five-point improvement in its overall score, to 73/100. This ranked the Group at the top of the 39 companies assessed in the Automotive sector. According to Vigeo Eiris, Michelin "demonstrates an advanced commitment and ability to integrate ESG factors into its strategy, operations and risk management." The Group also earned a score of 100/100 for the rating's "Environmental strategy" aspects.
- **MSCI**: MSCI upgraded Michelin's rating to the maximum AAA, recognizing the Group as best-in-class in the Automotive industry for its robust approach to managing product quality and environmental performance.
- **SUSTAINALYTICS (ESG RISK RATING)**: Michelin improved its overall rating from 15.2 to 13.1, taking it from 11th to 6th place in the global Automotive components industry.
- **ISS ESG**: Michelin retained its B- rating and PRIME status, thereby continuing to rank in the top decile across all the rated industries.
- **ECOVADIS**: Michelin retained its 78/100 score, along with its Platinum Medal rating for its CSR commitment and leadership (awarded to the top 1% of rated companies).
- **CDP**: In 2021, the CDP,[(1)] an independent non-financial rating organization, awarded Michelin a score of A based on its assessment that the Group had demonstrated exceptional leadership in tackling the challenges of climate change. The rating recognizes the quality of the Group's governance, its long-term strategy and its results.

2021 HIGHLIGHTS

- January 6, 2021 – Michelin launches a simplification and competitiveness project to support developments in its operations in France.
- February 9, 2021 – Thanks to its Camso TLH 732+ tire, Camso is optimizing productivity for its construction industry customers.
- March 10, 2021 – Michelin launches the new MICHELIN Wild Enduro Racing Line mountain bike tire, which has already demonstrated its capabilities with championship wins in some of the world's most challenging races.
- March 19, 2021 – Michelin partners with sennder, Europe's leading digital freight forwarder, to broaden its portfolio of fleet services that make road freight more cost-effective and less carbon intensive.
- April 2021 – With its two development projects underway with Safra and Stellantis, and the project to build Europe's largest hydrogen fuel cell plant in Saint-Fons, France, Symbio (a Faurecia Michelin Hydrogen Company) is helping to accelerate the transition to hydrogen mobility.
- April 2, 2021 – BMW Group reaffirms its trust in the Michelin Group with the development of two tires specifically for the BMW M3 and M4: the MICHELIN Pilot Sport 4S and the MICHELIN Pilot Sport Cup2 Connect.
- April 8, 2021 – At its Capital Markets Day, Florent Menegaux presents Michelin in Motion, the Group's "All Sustainable" strategy for 2030.
- April 15, 2021 – ProovStation, the European leader in automated inspection, partners with Michelin to reduce the time and costs of tire inspection, thanks to MICHELIN QuickScan technology.
- April 15, 2021 – Michelin and Altaris announce their intention to join forces to speed the growth of Solesis, a Michelin subsidiary specializing in biomaterials for the healthcare industry.

(1) Carbon Disclosure Program.

- April 23, 2021 – Harley-Davidson and Michelin pursue their long-standing collaboration with the MICHELIN Scorcher Adventure tire, custom-designed for the Harley-Davidson Pan America™ 1250 motorcycle.
- April 23, 2021 – By validating the use of Carbios' enzymatic recycling technology for PET(1) plastic waste in Michelin tires, Michelin takes a major step towards developing 100% sustainable tires, one of Michelin's major goals for 2050.
- April 30, 2021 – Following on from the February launch of the MICHELIN Pilot Sport EV, the first tire in the Pilot Sport family purpose-engineered for electric sports cars, Michelin has announced the roll-out of the MICHELIN X Incity EV Z tire, the Group's first family of tires designed specifically for electric buses.
- May 17, 2021 – Camso earns recognition as a "Partner-level supplier for 2020" in the John Deere Achieving Excellence Program.
- May 19, 2021 – The new MICHELIN Guide - Tablet Hotels app wins its first award, as "Webby Honoree" in the "Apps and Software" category. The distinction was presented at the Webby Awards, which honor excellence on the Internet.
- May 21, 2021 – The Annual Meeting of Michelin shareholders was held behind closed doors in compliance with French health rules. The event was an opportunity for a number of people to pay tribute to Michel Rollier, who stepped down as Chairman of the Supervisory Board. His successor, Barbara Dalibard, was elected at the same-day meeting of the Board.
- May 27, 2021 – The new MICHELIN Trailxbib tire, designed in association with farmers in a number of countries, increases farm yields thanks to the innovative MICHELIN Ultraflex technology.
- May 28, 2021 – AddUp, the joint venture created by Michelin and Fives in 2016, takes metal 3D printing to the next level with the development of a new generation of machines with promising features for industry.
- June 1, 2021 – Movin'On's shared governance represents a major milestone in the organization's development, designed to set its strategic direction and deliver actionable solutions to speed the transition to sustainable mobility.
- June 1, 2021 – At Movin'On 2021, Michelin presents two innovations: the WISAMO project, an automated, telescopic, inflatable wing sail system that will help to decarbonize maritime shipping, and a high-performance racing tire containing 46% sustainable materials that a few weeks later will take its first parade laps around the Le Mans 24 Hours track. Both offer further tangible, real-world proof of the Group's determination to make mobility increasingly sustainable.
- June 17, 2021 – KRISTAL.aero and Michelin launch KRISTAL.air, a mobile app for everyone who flies light aircraft, aligned with Michelin Aviation's commitment to fostering connected mobility, safe flying and closer customer relationships. It is also contributing to the Group's "All Sustainable" vision.
- June 23, 2021 – Michelin designs the new MICHELIN X AGVEV, the first tire specifically engineered for automatic guided vehicles (AGVs) in port facilities. The new tire helps to cut CO_2 emissions and increase an electric vehicle's battery life, thanks to its very low rolling resistance.
- June 30, 2021 – Four months after launching its new MICHELIN X® Multi™ Energy™ tires, Michelin expands the lineup with the new MICHELIN X® Multi Grip™ truck tire designed for extreme winter conditions and wet roads. All the new tires have in common the ability to make overland shipping more sustainable, in particular by reducing CO_2 emissions per kilometer driven.
- June 30, 2021 – Michelin launches "WATEA by Michelin" to support its corporate customers in transitioning to "zero-emission" mobility, based on an all-inclusive monthly subscription and a palette of more than 80 services.
- September 2, 2021 – Michelin introduces MICHELIN CrossClimate 2, the new generation of MICHELIN All-Season tires. The launch reflects the Group's commitment to investing and innovating to develop premium tires delivering very high technological value.
- September 15, 2021 – Michelin and Dorna extend their MotoGP™ partnership, confirming that Michelin will remain the exclusive official supplier of the premier class of motorcycle Grand Prix racing from 2024 to 2026.
- September 24, 2021 – Engie supports Michelin in decarbonizing its historic Cataroux plant in Clermont-Ferrand, with the goal of reducing the facility's energy use while cutting its greenhouse gas emissions.
- October 1, 2021 – At its fifth annual Supplier Awards, Michelin honors nine of its best suppliers based on five criteria: Sustainability, Innovation, Quality, Risk Management and Support provided during the crisis. Michelin believes that the quality and effectiveness of its supplier relations are essential drivers of its sustainable performance.
- October 1, 2021 – Fenner™ Precision Polymers acquires Lumsden Corporation, a leading manufacturer of metal conveyor belting. The deal strengthens the position of Fenner™ Precision Polymers as a leading supplier of highly specialized conveying products.
- October 13, 2021 – ResiCare, a Michelin subsidiary that develops and manufactures high-performance adhesives that are better for people and the planet, finds an initial outlet "beyond the tire." ResiCare offers a compelling illustration of the Michelin Group's commitment to moving into new growth territories.

(1) Polyethylene terephthalate. PET is a currently oil-based plastic; the monomers used, ethylene glycol and terephthalic acid, come from petroleum processing. PET is the raw material of one of the main textile fibers used in tire reinforcements

01
02
03
04

- November 17, 2021 – At the Solutrans trade show, Michelin introduces MICHELIN Connected Fleet, its new umbrella brand for fleets. MICHELIN Connected Fleet now brings together all the Group's fleet management services and solutions under the same banner.
- November 19, 2021 – Michelin acquires AirCaptif, a specialty manufacturer of ultralight inflatable structures, in a new illustration of the Michelin's expansion beyond tires in high-tech materials.
- November 25, 2021 - At its first Media Day, held at its global Research and Development center in Clermont-Ferrand, Michelin sets out the challenges of 100% sustainable tires. By 2030, Michelin will be using an average of 40% sustainable materials in its tires, with the goal of raising the rate to 100% by 2050.
- December 30, 2021 - Michelin acquires 100% ownership of Allopneus SAS, the French leader in sales and tire fitting online for private individuals. With this acquisition, Michelin consolidates its e-commerce presence in France.

A full description of the 2021 highlights may be found on the Michelin website: http://www.michelin.com/en.

PRESENTATION AND CONFERENCE CALL

Full-year 2021 results will be reviewed with analysts and investors during a presentation today, Monday, February 14, 2022 at 6:30 pm CET. The event will be in English, with simultaneous interpreting in French.

Webcast

The presentation will be webcast live on: www.michelin.com/en/finance.

Conference call

Please dial-in on one of the following numbers from 6:20 pm CET:

▶ In France	01 70 71 01 59 (French)	PIN code: 60407000#
▶ In France	+33 (1) 72 72 74 03 (English)	PIN code: 62446094#
▶ In the UK	+44 (0) 207 194 3759 (English)	PIN code: 62446094#
▶ In North America	+1 646 722 4916 (English)	PIN code: 62446094#
▶ From anywhere else	+44 (0) 207 194 3759 (English)	PIN code: 62446094#

The presentation of financial information for the year ended December 31, 2021 (press release, presentation, financial report) may also be viewed at http://www.michelin.com/en, along with practical information concerning the conference call.

INVESTOR CALENDAR

- **Quarterly information for the three months ending March 31, 2022:** Tuesday, April 26, 2022 after close of trading.
- **Annual Shareholders Meeting:** Friday, May 13, 2022.
- **Ex-dividend date**: Tuesday, May 17, 2022.
- **Payment date:** Thursday, May 19, 2022.
- **Results for the six months ending June 30, 2022:** Tuesday, July 26, 2022 after close of trading.
- **Financial information for the nine months ending September 30, 2022:** Monday, October 25, 2022 after close of trading.
- **Michelin in Motion progress report (digital event):** Tuesday, November 29, 2022.

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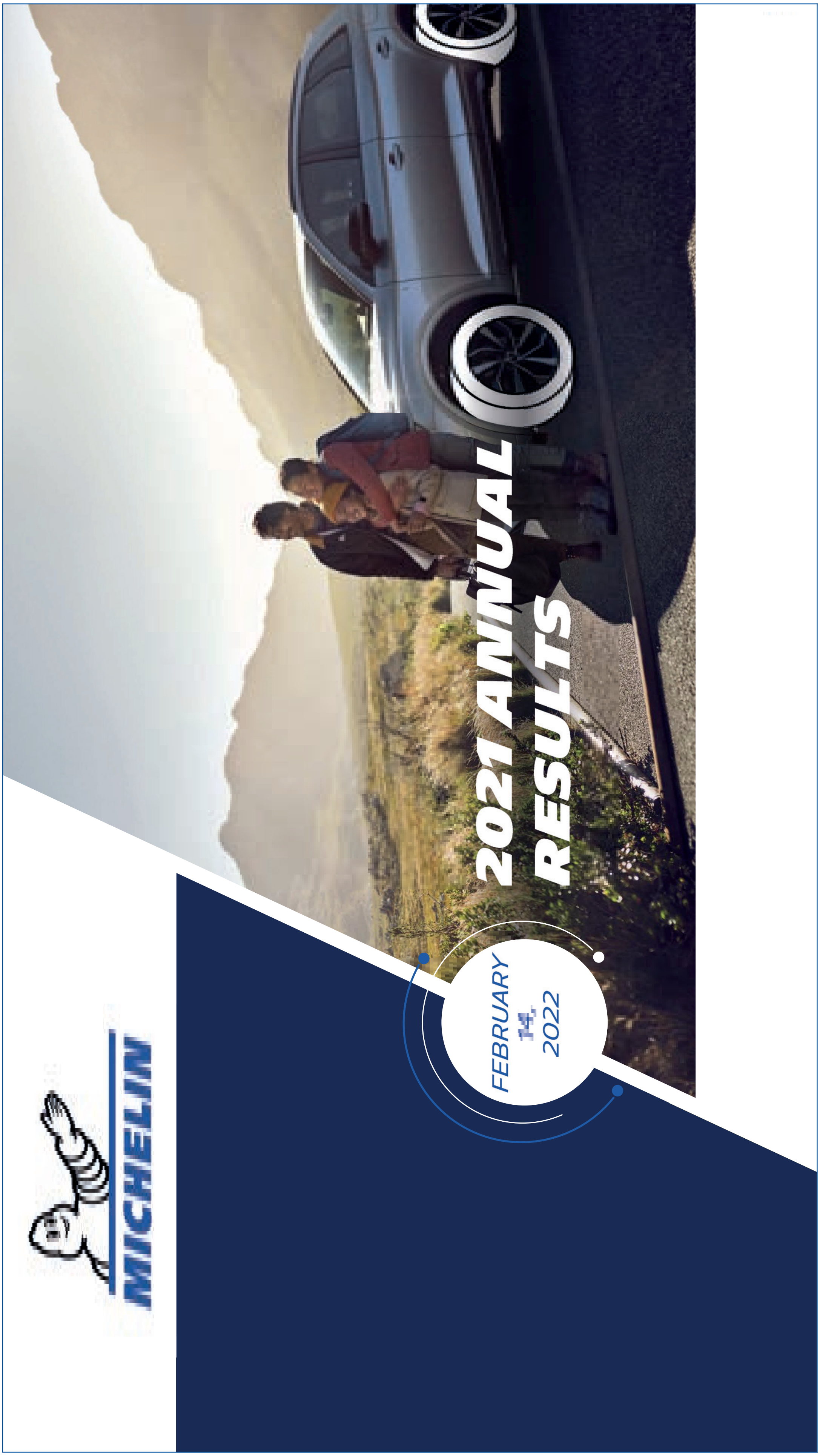
02

SLIDESHOW

SLIDESHOW 02

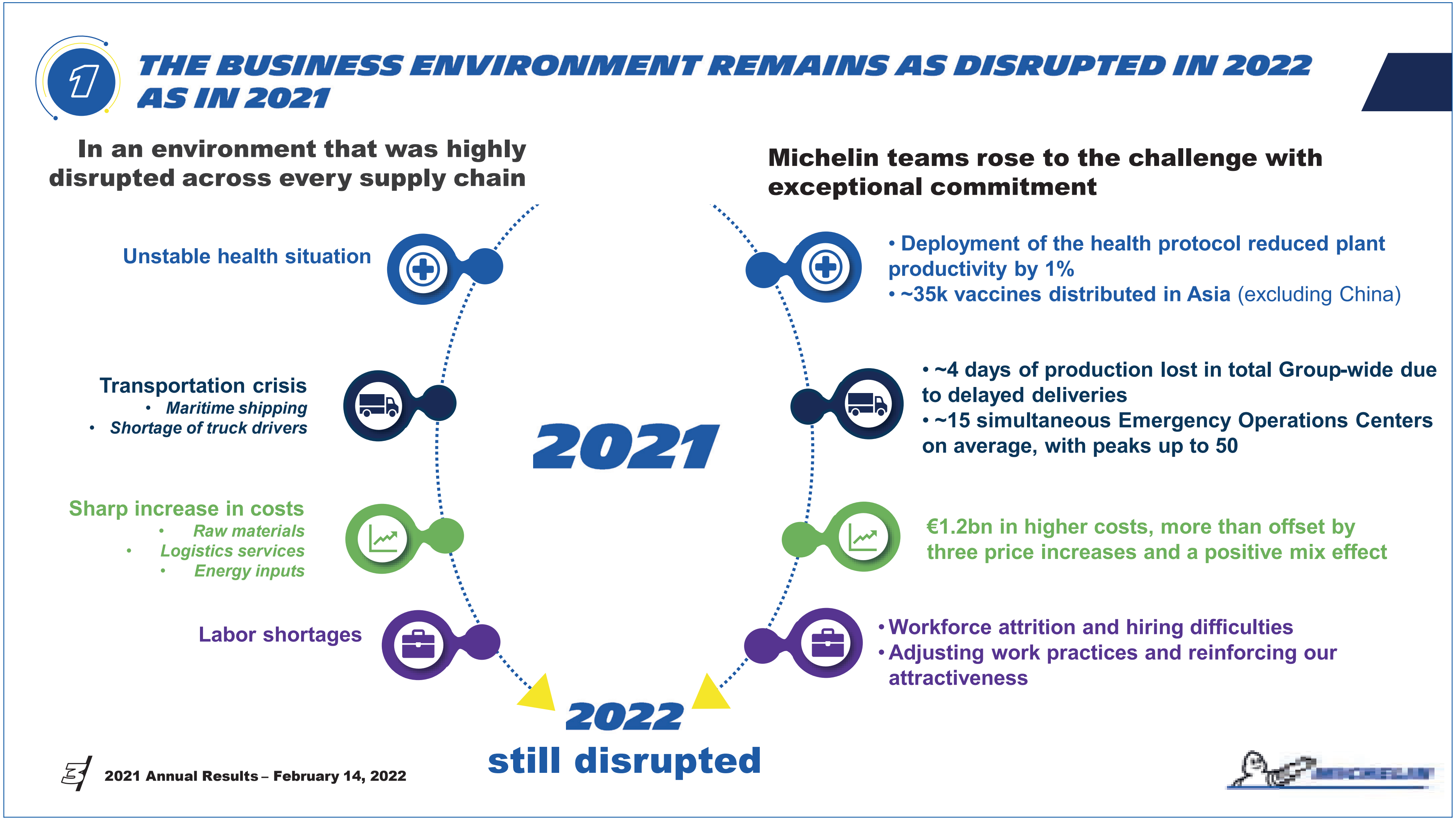

2021 ANNUAL
RESULTS
FEBRUARY
14,
2022
MICHELIN

1 THE MICHELIN GROUP DELIVERED OPERATING INCOME[1] OF €2.97BN AND A MARGIN[2] BACK IN LINE WITH 2019 AT 12.5%

- In the midst of a persistent health crisis, with disrupted supply chains and sharply rising costs, the Group continued to focus on protecting its employees and once again demonstrated the strength and resilience of its business model.
- Sales up 16.3% to €23,795m and segment operating income of €2,966m, or 12.5% of sales:
  - Tire volumes up 11.8% and non-tire sales up 7.7%
  - Favorable OE/RT mix in the Automotive segment, market share gains in 18-inch and larger tires confirming the Group's technological leadership
  - Dynamic price management in the non-indexed businesses, leveraging the brand's pricing power and offsetting all cost inflation factors
  - Specialty businesses hit harder by labor shortages, supply chain disruptions and costs inflation
- €1.5bn in free cash flow before acquisitions[3], or €1.8bn in structural free cash flow[3] adjusted for higher raw materials costs.
- The Group's performance in 2021 was in line with its "Michelin in Motion" strategic plan's objectives set for 2030 for each of its three pillars, People, Profit, Planet:
  - Percentage of women in management positions increased to 28.9%
  - Ongoing integration of acquired companies, generating €41m in additional synergies and bringing the annualized total to €122m
  - Sustained deployment of the simplification and competitiveness plans
  - A 10.3% return on capital employed
  - Environmental commitments strengthened with the signing of the Race to Zero agreement[4]
- Net income of €1,845m for the year, with a proposed dividend of €4.5 per share.

(1) Segment operating income
(2) Segment operating margin
(3) Definition : see slide 66

(4) A global campaign to rally support from businesses for the Paris Agreement's net zero emissions target by engaging them in "Business Ambition for 1.5°C", a call-to-action initiative led by the international Science Based Targets initiative (SBTi), the United Nations Global Compact, We Mean Business and several other organizations.


1
THE BUSINESS ENVIRONMENT REMAINS AS DISRUPTED IN 2022 AS IN 2021
In an environment that was highly disrupted across every supply chain
Unstable health situation
Transportation crisis
• Maritime shipping
• Shortage of truck drivers
Sharp increase in costs
• Raw materials
• Logistics services
• Energy inputs
Labor shortages
2021
2022
still disrupted
Michelin teams rose to the challenge with exceptional commitment
• Deployment of the health protocol reduced plant productivity by 1%
• ~35k vaccines distributed in Asia (excluding China)
• ~4 days of production lost in total Group-wide due to delayed deliveries
• ~15 simultaneous Emergency Operations Centers on average, with peaks up to 50
€1.2bn in higher costs, more than offset by three price increases and a positive mix effect
• Workforce attrition and hiring difficulties
• Adjusting work practices and reinforcing our attractiveness
3
2021 Annual Results – February 14, 2022


2021 ANNUAL RESULTS
2

IN 2021, MICHELIN DELIVERED A STRONG OVERALL PERFORMANCE IN THE THREE PILLARS OF ITS "ALL SUSTAINABLE" STRATEGY

PEOPLE

28.9% of managers are women — **+0.7 PT** vs. 2020

80% employee engagement rate — **-2 PTS** vs. 2020(2)

1.29 TCIR(1) — **+0.1** vs. 2020

PROFIT

€2,966M Segment operating income — **12.5%** of sales

10.3% ROCE(3) — **>10.5%** 2023-2030 target

€1,464M Free cash flow before M&A(3)

PLANET

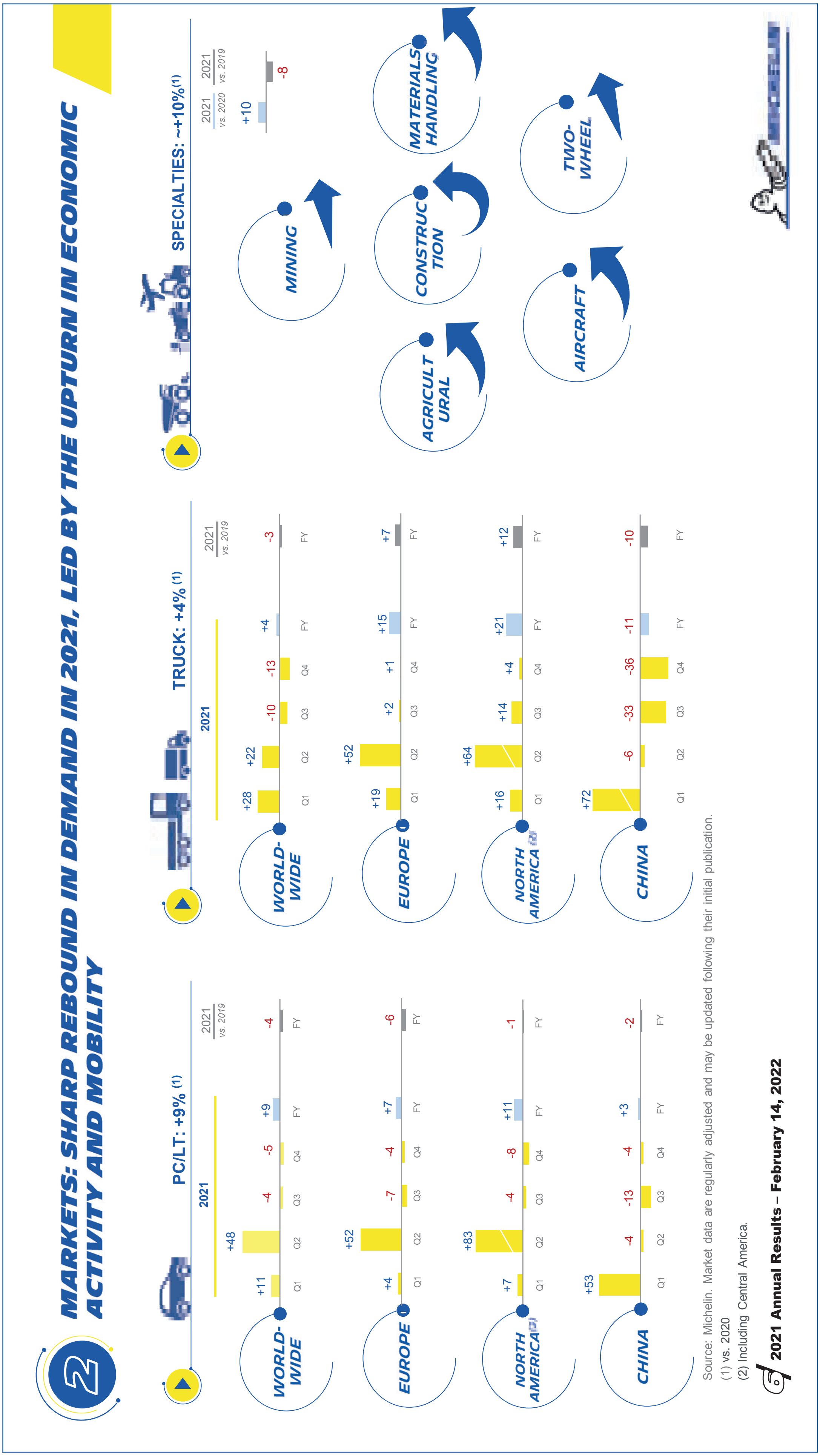
2.8MT CO_2 emissions scopes 1&2 — **-29%** vs. 2010(4)

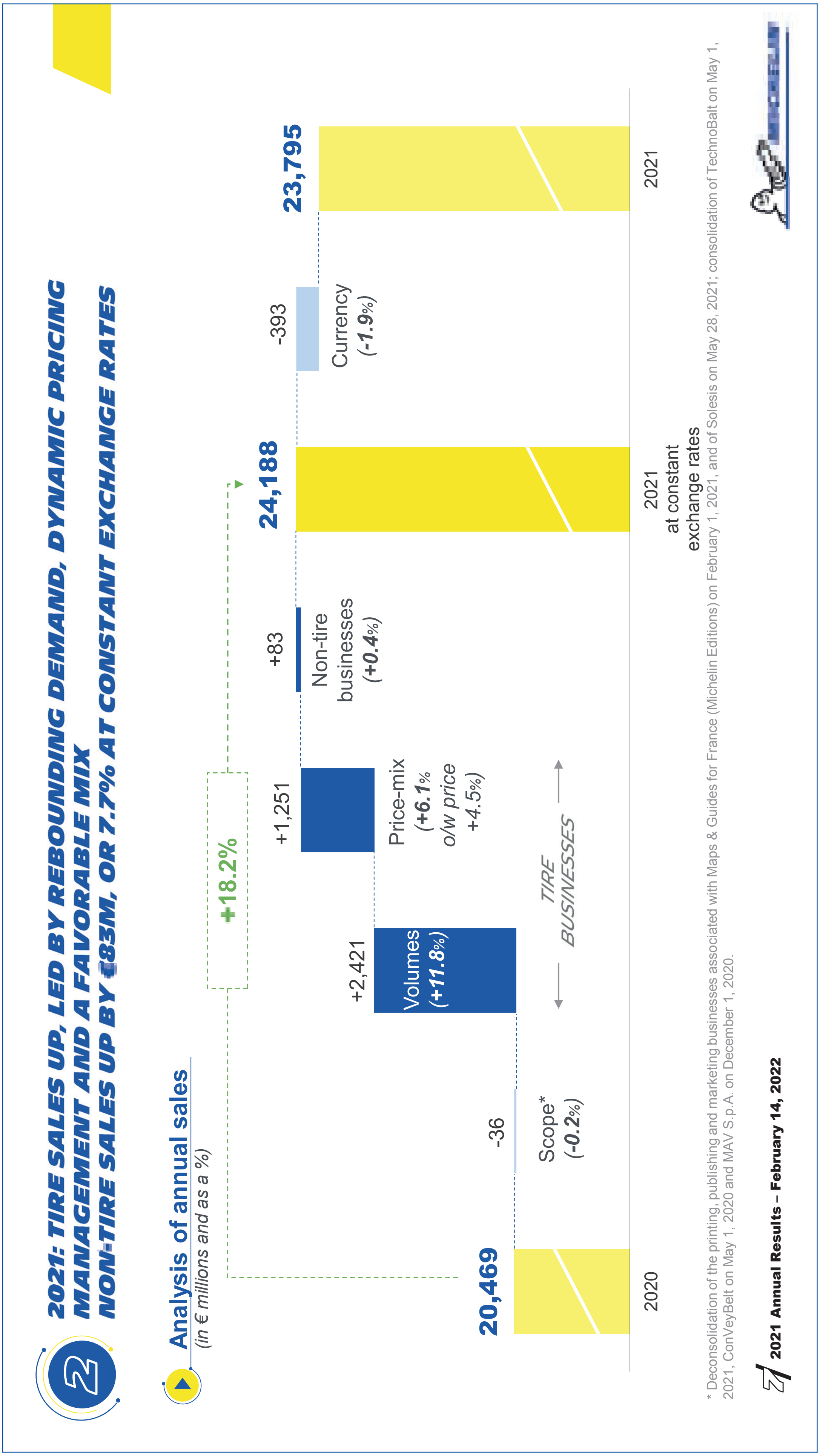
92.6 i-MEP(4)(5) — vs. 100 in 2019(4)

29% Average sustainable materials rate in tires — **40%** 2030 target

(1) Total Case of Incident Rate.
(2) Based on the 2021 scope of reporting, the 2020 rate was 82%, versus 83% as reported based on the 2020 scope.
(3) Definition: see slide 66
(4) See the strategic dashboard on slide 24 presenting the 2030 ambitions in detail
(5) The industrial-Michelin Environmental Performance indicator is used to track the environmental impacts of the Group's manufacturing operations (see slide 51 and p.150 of the 2020 Universal Registration Document).

5 2021 Annual Results – February 14, 2022

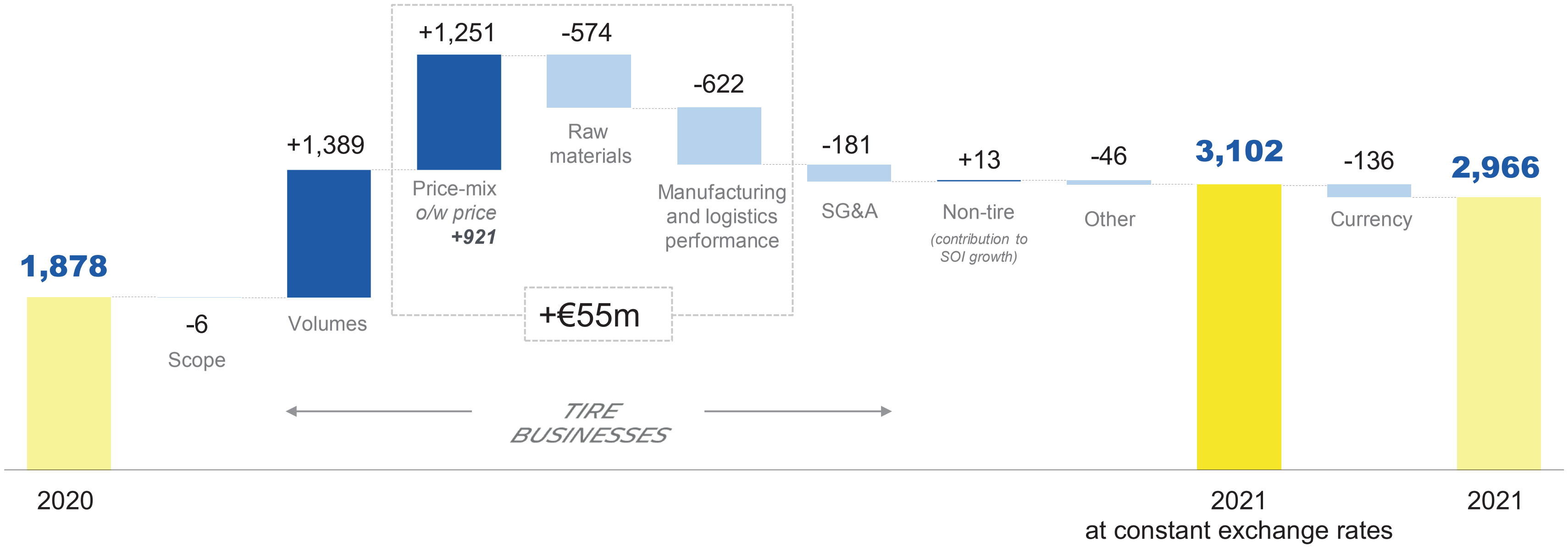

MARKETS: SHARP REBOUND IN DEMAND IN 2021, LED BY THE UPTURN IN ECONOMIC ACTIVITY AND MOBILITY
PC/LT: +9% (1)
2021
2021 vs. 2019
WORLD-WIDE +11 Q1 +48 Q2 -4 Q3 -5 Q4 +9 FY -4 FY
EUROPE +4 Q1 +52 Q2 -7 Q3 -4 Q4 +7 FY -6 FY
NORTH AMERICA(2) +7 Q1 +83 Q2 -4 Q3 -8 Q4 +11 FY -1 FY
CHINA +53 Q1 -4 Q2 -13 Q3 -4 Q4 +3 FY -2 FY
TRUCK: +4% (1)
2021
2021 vs. 2019
WORLD-WIDE +28 Q1 +22 Q2 -10 Q3 -13 Q4 +4 FY -3 FY
EUROPE +19 Q1 +52 Q2 +2 Q3 +1 Q4 +15 FY +7 FY
NORTH AMERICA(2) +16 Q1 +64 Q2 +14 Q3 +4 Q4 +21 FY +12 FY
CHINA +72 Q1 -6 Q2 -33 Q3 -36 Q4 -11 FY -10 FY
SPECIALTIES: ~+10%(1)
2021 vs. 2020 +10
2021 vs. 2019 -8
MINING
AGRICULTURAL
CONSTRUCTION
MATERIALS HANDLING
AIRCRAFT
TWO-WHEEL
Source: Michelin. Market data are regularly adjusted and may be updated following their initial publication.
(1) vs. 2020
(2) Including Central America.
2021 Annual Results – February 14, 2022


2021: TIRE SALES UP, LED BY REBOUNDING DEMAND, DYNAMIC PRICING MANAGEMENT AND A FAVORABLE MIX
NON-TIRE SALES UP BY €83M, OR 7.7% AT CONSTANT EXCHANGE RATES
Analysis of annual sales
(in € millions and as a %)
+18.2%
20,469
2020
-36
Scope*
(-0.2%)
+2,421
Volumes
(+11.8%)
+1,251
Price-mix
(+6.1%
o/w price
+4.5%)
TIRE BUSINESSES
+83
Non-tire businesses
(+0.4%)
24,188
2021
at constant exchange rates
-393
Currency
(-1.9%)
23,795
2021
* Deconsolidation of the printing, publishing and marketing businesses associated with Maps & Guides for France (Michelin Editions) on February 1, 2021, and of Solesis on May 28, 2021; consolidation of TechnoBalt on May 1, 2021, ConVeyBelt on May 1, 2020 and MAV S.p.A. on December 1, 2020.
2021 Annual Results – February 14, 2022

2021: SOI ROSE TO €2.97BN, LIFTED BY THE REBOUND IN DEMAND. PRICE INCREASES AND THE MIX OFFSET €1.2BN IN COSTS INFLATION NON-TIRE SOI IMPROVED BY €13M

Analysis of segment operating income

(in € millions)



2021 Annual Results – February 14, 2022

2 SALES GROWTH IN EVERY SEGMENT, RESPONSIVE PRICING POLICIES IN ALL THE NON-INDEXED BUSINESSES

(in € millions)	2021	2020	Change
RS1 sales	**11,998**	**10,103**	**+18.8%**
Operating income*	***1,643***	***839***	*+95.8%*
Operating margin*	13.7%	8.3%	+5.4 pts
RS2 sales	**6,233**	**5,373**	**+16.0%**
Operating income*	***599***	***302***	*+98.3%*
Operating margin*	9.6%	5.6%	+4.0 pts
RS3 sales	**5,564**	**4,993**	**+11.4%**
Operating income*	***724***	***737***	*-1.8%*
Operating margin*	13.0%	14.8%	-1.8 pt

* For the segment.

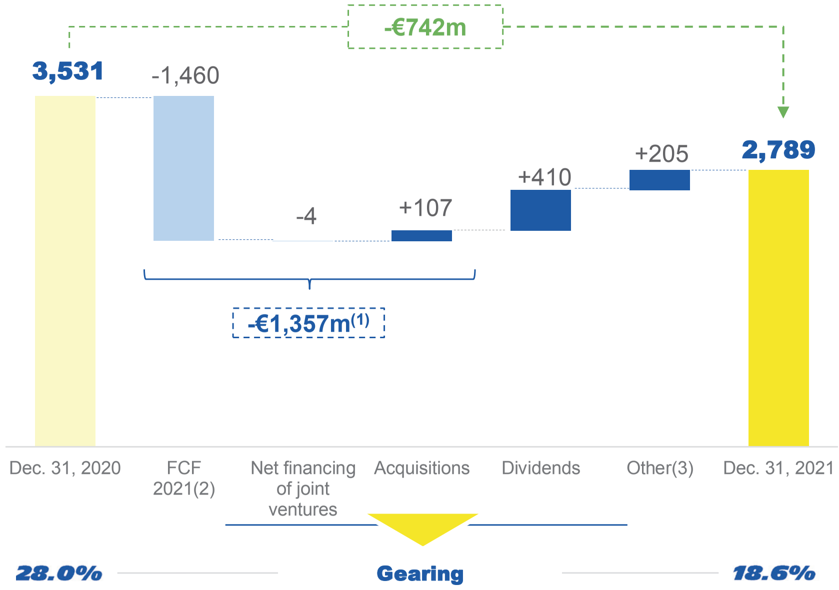
In a context of strong inflation (with dilutive effect on operating margin) and significant supply chain disruptions:

- **RS1**: strong growth in sales and operating income led by dynamic pricing management, market share gains in 18-inch and larger tires and a favorable OE/RT mix, as OE sales were severely impacted by the shortage of auto semiconductors.
- **RS2**: strong growth in sales and operating income impelled by robust demand in Europe and North America, a targeted focus on the highest value market segments, responsive pricing management and sustained expansion in fleet management solutions.
- **SR3**: higher sales lifted by the Beyond Road businesses (Construction, Agricultural and Materials Handling tires). The segment was hit harder by disruptions in its inbound and outbound supply chains, labor shortages and very high costs inflation. With a majority of its revenues covered by indexation clauses, operating margin narrowed sharply in 2021, due to the time lag before price increases kicked in.

9 **2021 Annual Results – February 14, 2022**

18,6% GEARING AT END-2021
A ROBUST FINANCIAL POSITION CONFIRMED BY THE RATING AGENCIES

Net debt
(in € millions)



(1) Free cash Flow, see definition slide 66
(2) Free cash flow before M&A and JV financing
(3) Mainly new leases, forex impact

Agency ratings at end-2021
Compagnie Générale des Établissements Michelin

Short term	S&P Fitch	A-2 F-2
Long term	S&P Fitch Moody's(4)	A- A- A3
Outlook	S&P Fitch Moody's(4)	Stable Stable Stable

(4) A Moody's rating is no longer solicited as of July 1, 2020.

2021 Annual Results – February 14, 2022

€1.4BN IN FREE CASH FLOW[1], SUPPORTED BY A STRONG €4.7BN IN EBITDA. 10.3% ROCE[1], IN LINE WITH THE 2023-2030 TARGET OF ABOVE 10.5%

Free cash flow[1]

(in € millions, including JV financing and acquisitions)

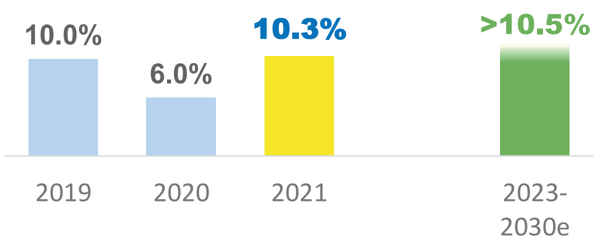
Segment EBITDA	**4,700**
Change in net trade working capital	(824)
of which inventories	*(1,106)*
Tax and interest paid	(769)
Capital expenditure outlay	(1,441)
Acquisitions	(107)
Restructuring	(214)
Other	12
Free cash flow	**1,357**

(1) See slide 66 for the definition

Return on capital employed

In 2021, the Group continued to deploy its value creation strategy, in line with its 2023-2030 ambitions:

- Improving margins:
  - Margins protected from rising costs with dynamic pricing management
  - Market share gains in 18-inch and larger tires
  - Priority focus on the MICHELIN brand
- Optimizing capital employed:
  - Working capital requirement: disciplined DSO/DPO management, sustained deployment of the inventory reduction strategy
  - Non-current assets: capital expenditure per unit in line with industry benchmarks
- Analysis of ROCE



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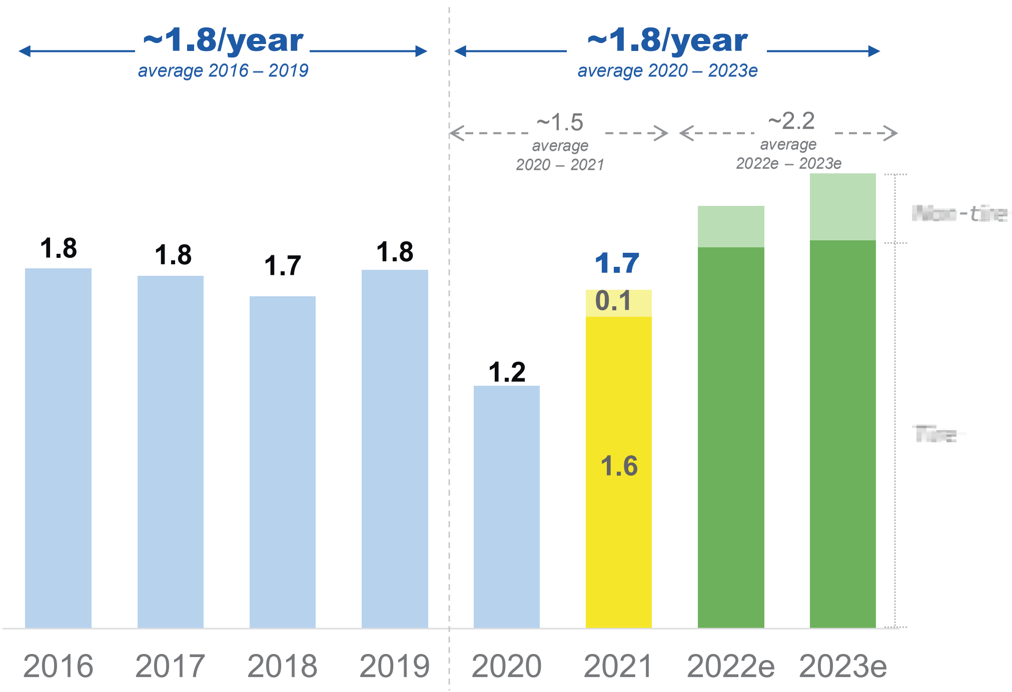
CAPEX: ~€600/€700M INCREASE IN 2022-2023 TO MAKE UP FOR POSTPONEMENTS AMID THE 2020-2021 CRISIS

Committed and planned capital expenditure (1)

(in € billions)



Key points

WITH TIRES

Capex stable as a % of sales:
- Investing in growth segments:
  - MICHELIN brand
  - Automotive mix
  - Specialties
- Optimizing routine capex
- Digital manufacturing and competitiveness

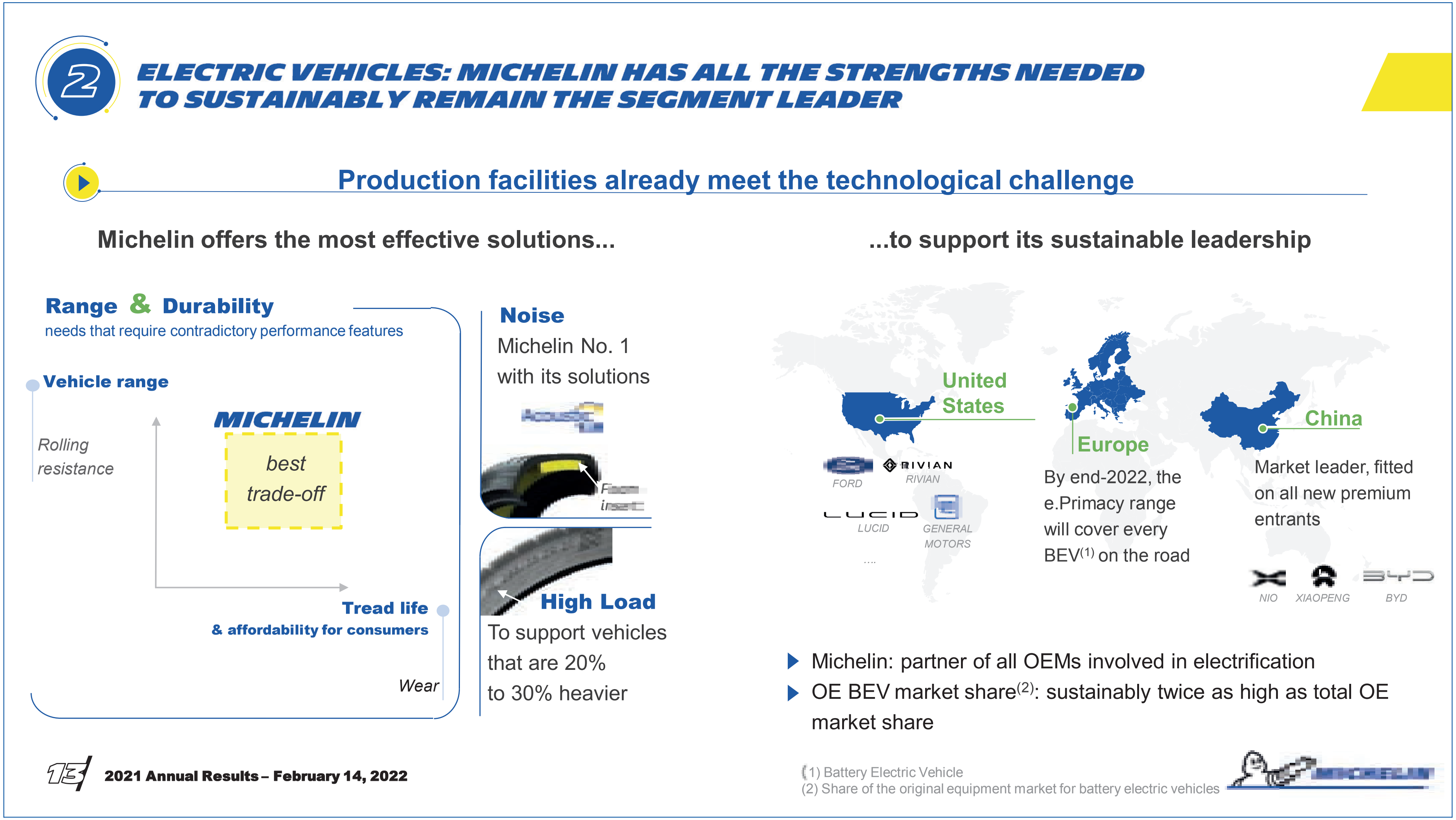
AROUND TIRES BEYOND TIRES

Growth in capex:
- Services and Solutions
- Flexible composites

- Increased capex in sustainable materials and to reduce the carbon intensity of operations and product: ~€300m/year
- JV financing (excluding capex)
  - around €50 million/year

2021 Annual Results – February 14, 2022

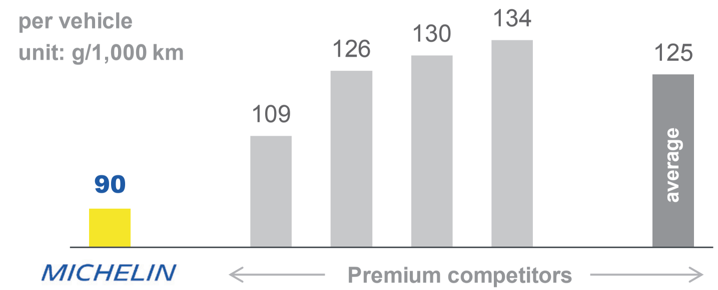
(1) Purchases of intangible assets and PP&E


2
ELECTRIC VEHICLES: MICHELIN HAS ALL THE STRENGTHS NEEDED TO SUSTAINABLY REMAIN THE SEGMENT LEADER
Production facilities already meet the technological challenge
Michelin offers the most effective solutions...
...to support its sustainable leadership
Range & Durability
needs that require contradictory performance features
Vehicle range
Rolling resistance
MICHELIN
best trade-off
Tread life
& affordability for consumers
Wear
Noise
Michelin No. 1 with its solutions
High Load
To support vehicles that are 20% to 30% heavier
United States
FORD
RIVIAN
LUCID
GENERAL MOTORS
....
Europe
By end-2022, the e.Primacy range will cover every BEV(1) on the road
China
Market leader, fitted on all new premium entrants
NIO
XIAOPENG
BYD
Michelin: partner of all OEMs involved in electrification
OE BEV market share(2): sustainably twice as high as total OE market share
(1) Battery Electric Vehicle
(2) Share of the original equipment market for battery electric vehicles
13
2021 Annual Results – February 14, 2022

WEAR PARTICLES: MICHELIN HAS A CONSIDERABLE COMPETITIVE ADVANTAGE, WITHOUT COMPROMISING SAFETY

“Low tyre abrasion and safe driving characteristics: Michelin shows how it [should be] done”
(ADAC, Dec. 2021[1])

Particulate emissions: Michelin vs. other premium tiremakers
Source: ADAC, Dec. 2021[1]



The environmental impact of tire abrasion is up to 50% higher for other manufacturers than for Michelin, whose tire technology currently gives them an enormous lead over the competition.

Dowload the ADAC study

MICHELIN leader

Michelin is continuously improving the performance of its products thanks to its unrivaled expertise

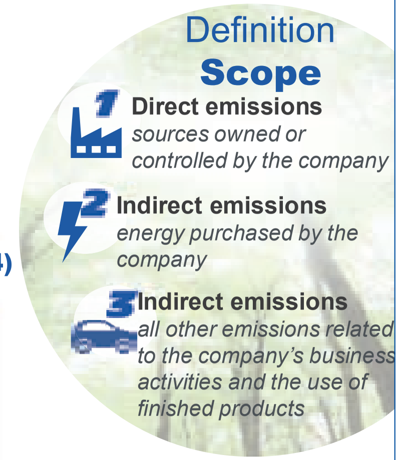
Particulate emissions are being reduced with each new range[2]

2021 Annual Results – February 14, 2022

(1) Tyre wear particles in the environment, ADAC, Dec. 2021 – 100 sizes tested
(2) DEKRA studies in 2020 (MARK20B, MARK20E) and 2021 (MARK21E)

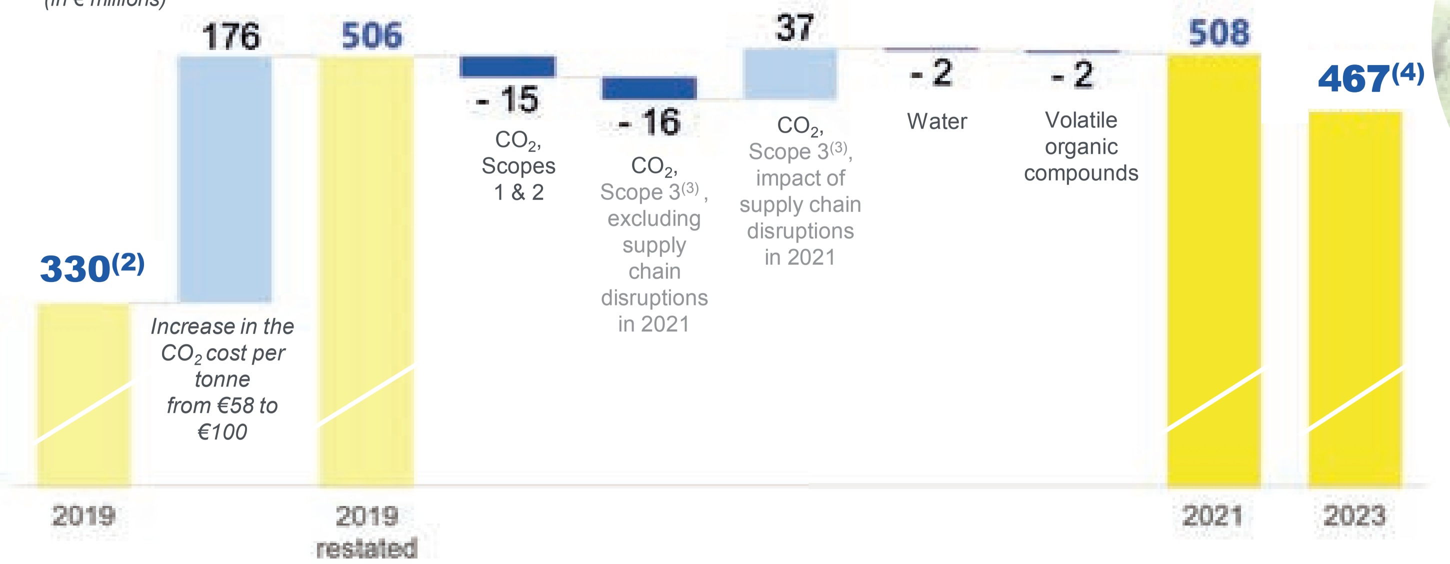
MICHELIN IS PURSUING PROGRAMS TO REDUCE ITS CO_2 EMISSIONS, VOC[1] EMISSIONS AND WATER WITHDRAWALS

In response to supply chain disruptions, the Group occasionally had to resort to more costly workarounds on an as-needed basis, which penalized CO_2 emissions in 2021.



Analysis of externality costs

(in € millions)



(1) Volatil Organic Compounds
(2) Including €3m from adjustments in the method of calculating transportation-related CO_2 emissions
(3) Covers only the inbound and outbound transportation and distribution of natural rubber, semi-finished products and finished product

(4) Corresponds to the 2023 target of approximately €300m announced at the CMD on April 8, 2021, adjusted for the ton of CO_2 valued at €100/t and the change in method mentioned in (2)

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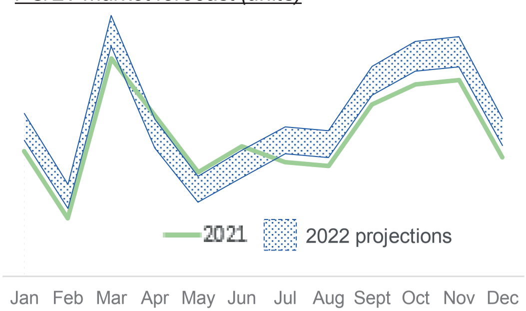
2022 GUIDANCE
3

2022 MARKET SCENARIO: EXPECTED GROWTH IN DEMAND IN A PERSISTENTLY DISRUPTED ENVIRONMENT

PC/LT: +0%/+4%*

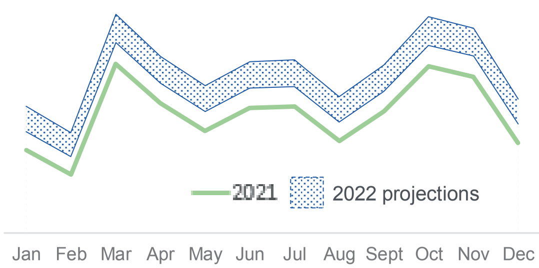
- OE: supply difficulties are continuing to weigh on the market in H1, with a gradual improvement expected in H2
- RT: global demand remains high, without significant inventory rebuilding



TRUCK excl. China: +3%/+7%*

Truck tires worldwide: +1%/+5%*

- OE: demand outside China remains robust, from already high comparatives
- RT: global demand remains strong, buoyed by freight demand in every region



SPECIALTIES: +6%/+10%*

- Mining tires: demand remains robust, but sanitary crisis and supply chain disruptions are complicating operations in H1
- Off-the-road tires: fast growing demand
- Two-wheel tires: sustained growth
- Aircraft tires: growth in demand from still weak comparatives

*vs. 2021

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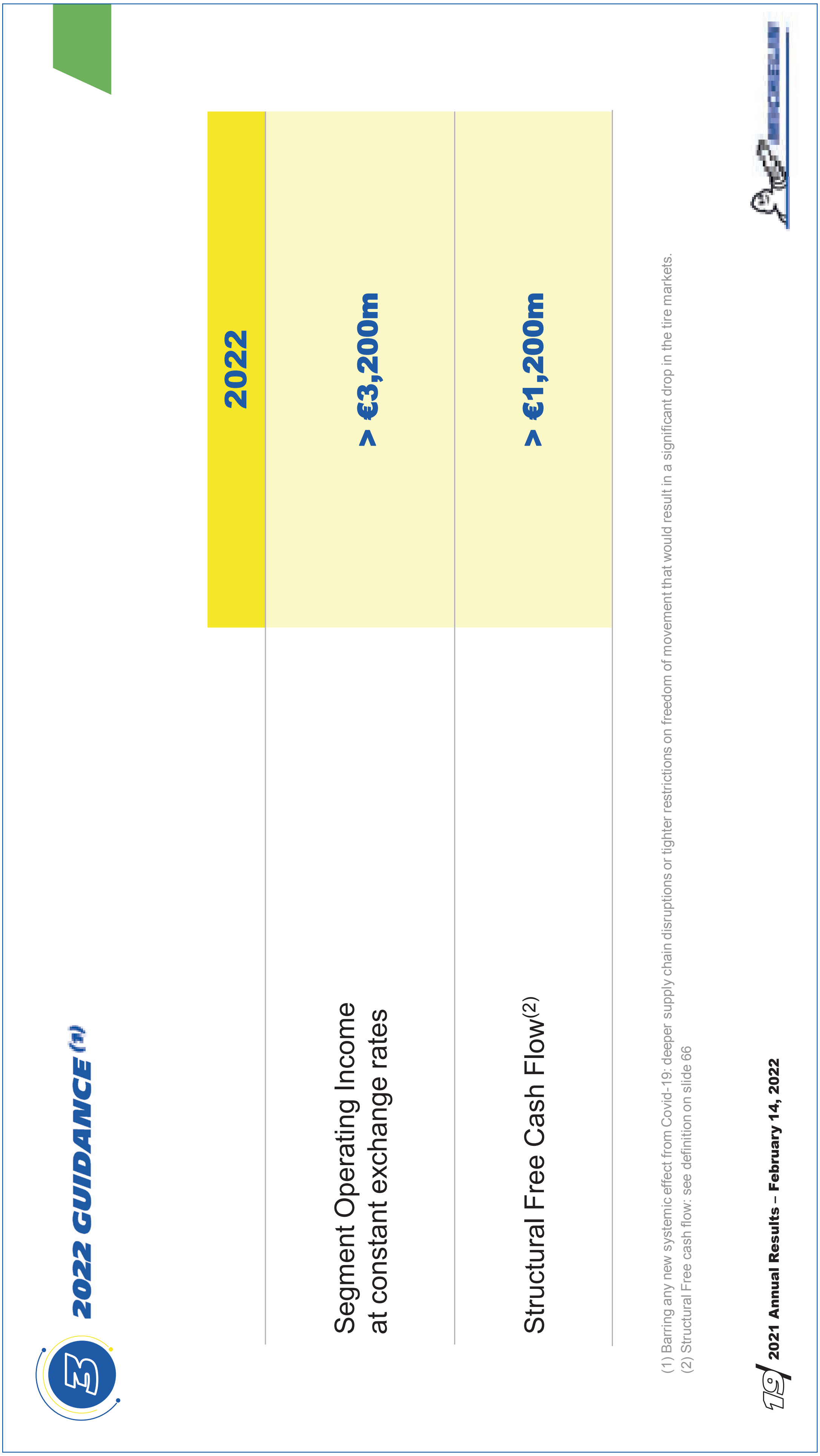
3
2022 SCENARIO
2022
Volumes
In line with markets
Cost impact of raw materials prices, customs duties, transportation and energies
Strongly negative
Net price-mix/raw materials, industrial and logistic performance
Neutral
18
2021 Annual Results – February 14, 2022


3
2022 GUIDANCE (1)
2022
Segment Operating Income at constant exchange rates
> €3,200m
Structural Free Cash Flow(2)
> €1,200m
(1) Barring any new systemic effect from Covid-19: deeper supply chain disruptions or tighter restrictions on freedom of movement that would result in a significant drop in the tire markets.
(2) Structural Free cash flow: see definition on slide 66
19
2021 Annual Results – February 14, 2022


APPENDICES
4

4 FINANCE CALENDAR

- **Events to come:**
  - **April 26, 2022 (after close of trading)**: First-quarter 2022 sales
  - **May 13, 2022:** Annual Shareholders Meeting
  - **July 26, 2022 (after close of trading)**: First-half 2022 results
  - **October 25, 2022 (after close of trading):** Third-quarter and 9 months 2022 sales
  - **November 29, 2022**: Update about « *Michelin in Motion* » *(digital event)*

- **Dividend dates:**
  - **May 17, 2022**: Ex Date
  - **May 18, 2022**: Record date
  - **May 19, 2022**: Payment date

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4 REPORTED 2021, 2020 AND 2019 FINANCIAL HIGHLIGHTS

(in € millions)	2021	2020	2019
Sales	**23,795**	20,469	24,135
Segment EBITDA	**4,700**	3,631	4,763
Segment EBITDA margin	**19.8%**	17.7%	19.7%
Segment Operating Income	**2,966**	1,878	3,009
Segment Operating margin	**12.5%**	9.2%	12.5%
Other Operating income and expenses	**(189)**	(475)	(318)
Net income	**1,845**	625	1,730
Basic earnings per share (in €)	**10.31**	3.52	9.69
Capital expenditure outlays	**1,441**	1,323	1,715
Free cash flow*	**1,357**	2,004	1,142
Gearing	**18.6%**	28.0%	39.2%

* Definition: see slide 66

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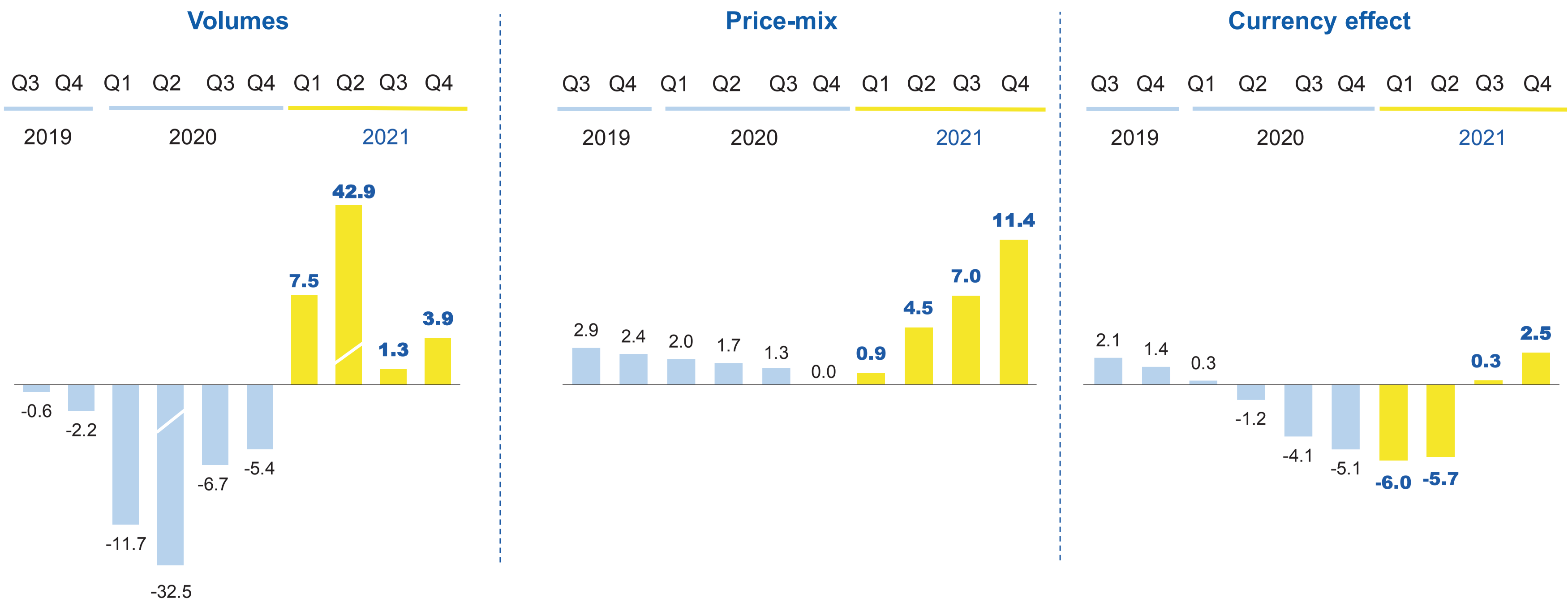
4 2021: DYNAMIC PRICE MANAGEMENT THROUGHOUT THE YEAR, IN A TIME OF STRONGLY REBOUNDING DEMAND AND SHARPLY RISING COSTS

YoY QUARTERLY CHANGE
(%)



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DETAILED STRATEGIC SCORECARD: IN LINE WITH 2030 VISION

	AMBITIONS	METRICS	2030 SUCCESS	RESULTS 2019	RESULTS 2020	RESULTS 2021
People	Be world-class in employee engagement	Engagement rate	>85%	80%	82%(1)	80%
People	Be world-class in employee safety	TCIR(2)	<0.5	1.43	1.19	1.29
People	Be a reference in diversities and inclusion of teams	IMDI(2)	80 pts over 100	-	62	67
People	Be best-in-class in value created for customers	NPS(2) partners	+10 pts vs. 2020	38	40.5	38.9
Profit	Deliver substantial growth	Total sales (in €bn)	+5% CAGR 2023-2030	24.1	20.5	23.8
Profit	Deliver continuous financial value creation	ROCE(2)	>10.5%	10.0%	6.0%	10.3%
Profit	Maintain MICHELIN brand power	Brand vitality quotient	+5 pts vs. 2021	-	58	68
Profit	Maintain best-in-class innovation pace in products and services	Brand vitality Index	>30%	30%	29%	31%
Planet	Reach carbon neutrality by 2050 (manuf. and energy)	CO_2 emissions scopes 1&2	(50%) vs. 2010	(24.8%) 2,919Kt	(36.5%) 2,463Kt	(29%) 2,764 Kt
Planet	Contribute to reaching carbon neutrality (usage)	Products energy efficiency (scope 3)	+10% vs. 2020	-	100	100.5
Planet	Be best-in-class in environmental footprint of industrial sites	i-MEP(2)	-1/3 vs. 2019	100	-	92.6
Planet	Reach full circularity of products by 2050	Sustainable Material Rate	40%	26%	28%	29%

(1) Based on the 2021 scope of reporting, the 2020 rate was 82%, versus 83% as reported based on the 2020 scope.
(2) TCIR = Total Case Incident Rate; IMDI = Inclusion and Diversities Management Index; NPS = Net Promoter Score; ROCE = Return on Capital Employed; i-MEP = industrial - Michelin Environmental Performance, see p.150 of the 2020 Universal Registration Document

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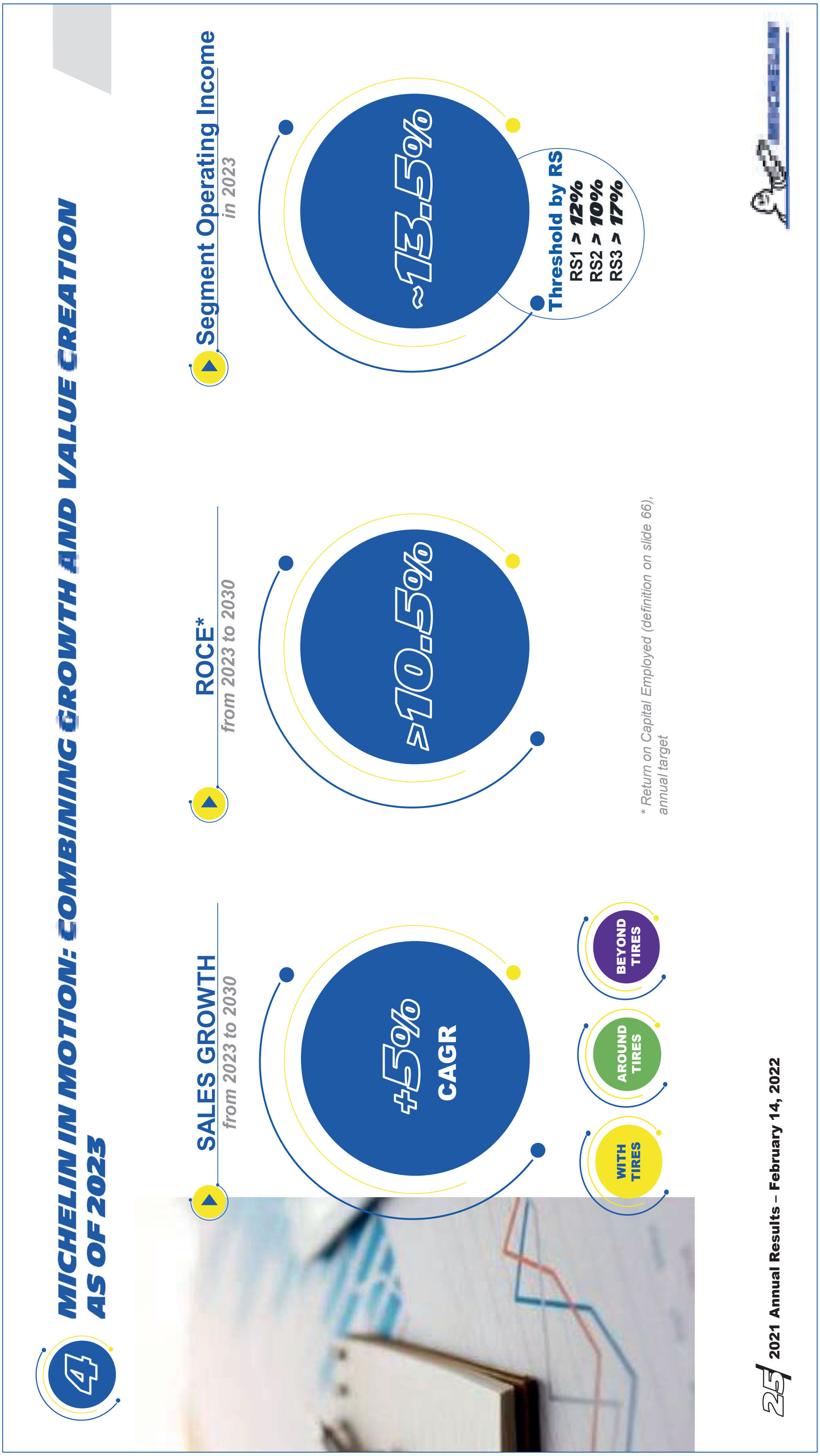
4
MICHELIN IN MOTION: COMBINING GROWTH AND VALUE CREATION AS OF 2023
SALES GROWTH
from 2023 to 2030
+5%
CAGR
WITH TIRES
AROUND TIRES
BEYOND TIRES
ROCE*
from 2023 to 2030
>10.5%
* Return on Capital Employed (definition on slide 66), annual target
Segment Operating Income
in 2023
~13.5%
Threshold by RS
RS1 > 12%
RS2 > 10%
RS3 > 17%
25
2021 Annual Results – February 14, 2022

4 CAPITAL MARKETS DAY, APRIL 8, 2021: RELIVE THE EVENT

A dedicated page has been created for the event on the www.michelin.com website. It features a number of replayable videos that review the day's presentations and offer insight into the following themes, which are going to drive the Group's sustainable growth:

- Michelin's Environmental Leadership: Focus on the Automotive segment
- Industry 4.0: a key lever to improve our industrial efficiency
- Services and Solutions: understanding customer needs and how our products are used enables us to develop and offer high value-added solutions
- High-Tech Materials: leveraging our R&D expertise in materials, to develop new growth avenues
- Metal 3D Printing: a unique offering in a very high-potential market
- Hydrogen: becoming a global player in hydrogen mobility

The **digital version of the 2020 Annual Report** is available on the Group's corporate site at the following address: https://www.michelin.com/en/annual-report/

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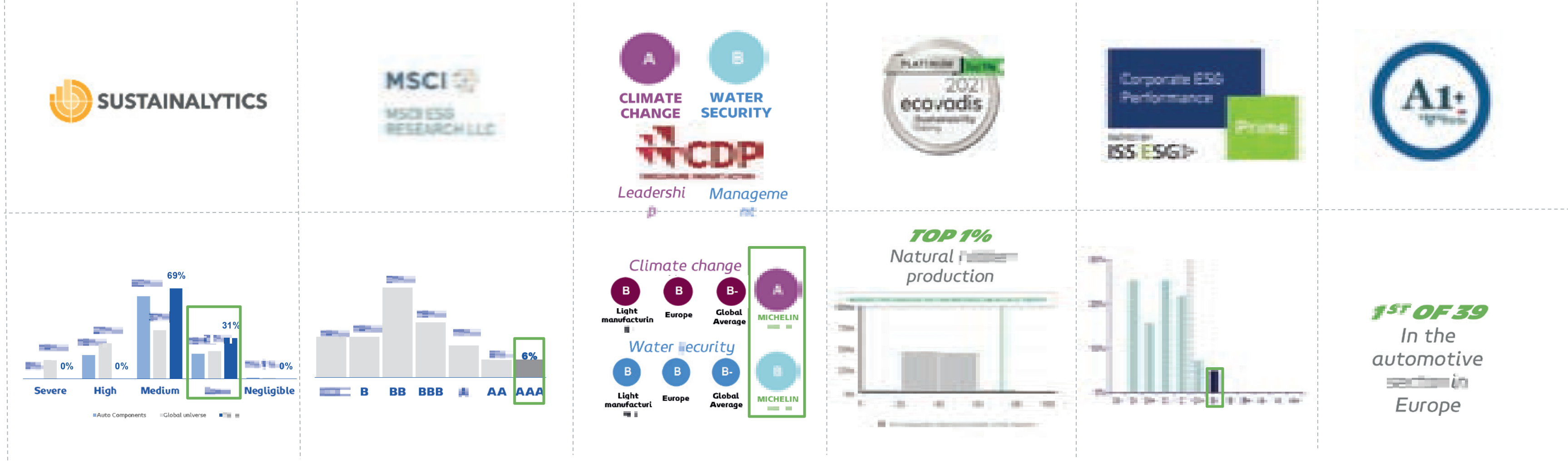
4 NON-FINANCIAL PERFORMANCE: MICHELIN, A LEADING AND RECOGNIZED PLAYER IN SUSTAINABLE MOBILITY

Major sustainability rating *(as of December 31, 2021)*

	SUSTAINALYTICS (risk rating) 2021	MSCI 2021	CDP 2021	ECOVADIS 2021	ISS ESG 2021	VIGEO EIRIS Moody's 2021
Rating	LOW RISK	AAA	A & B	78/100	B-	73/100



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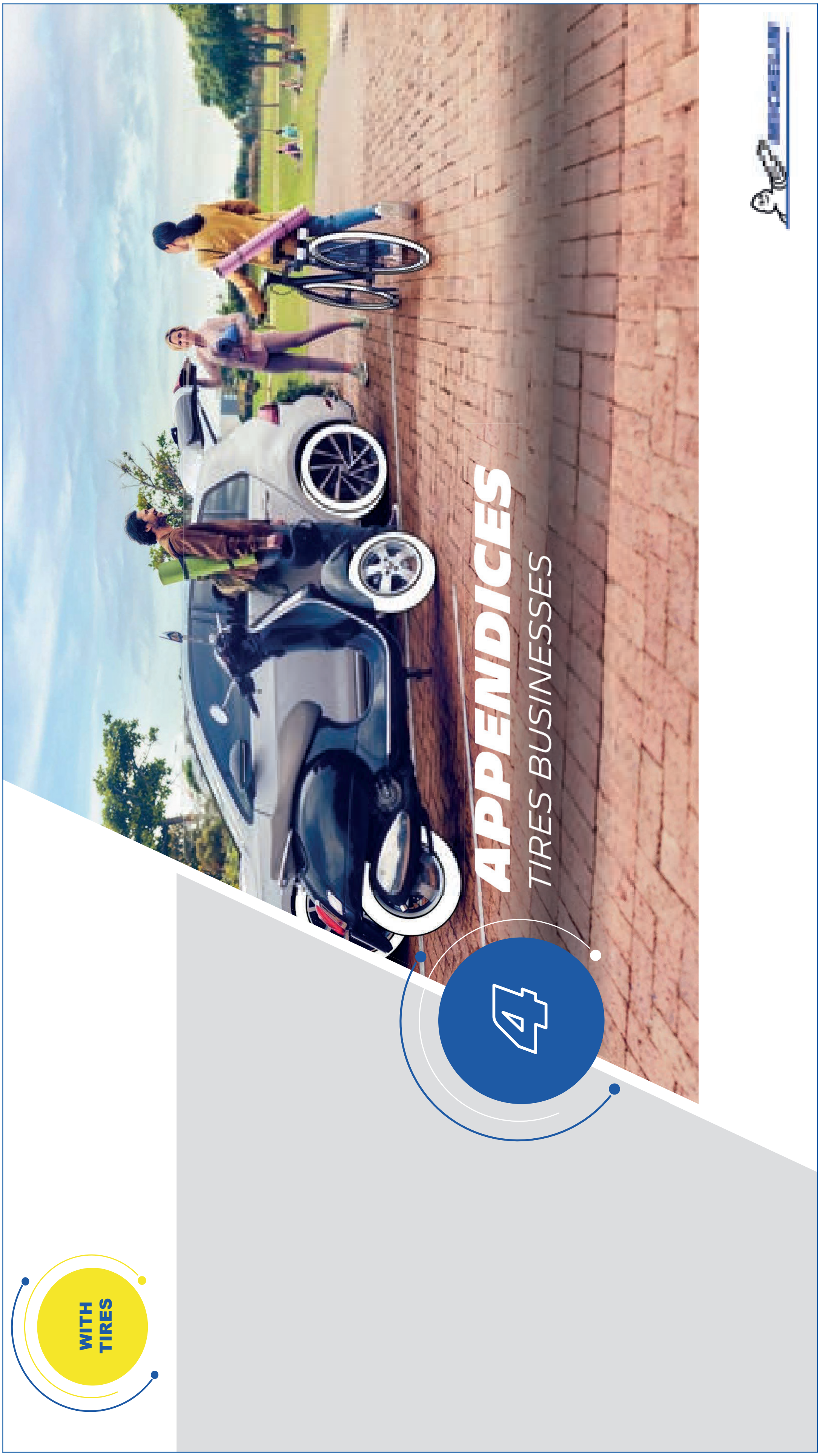
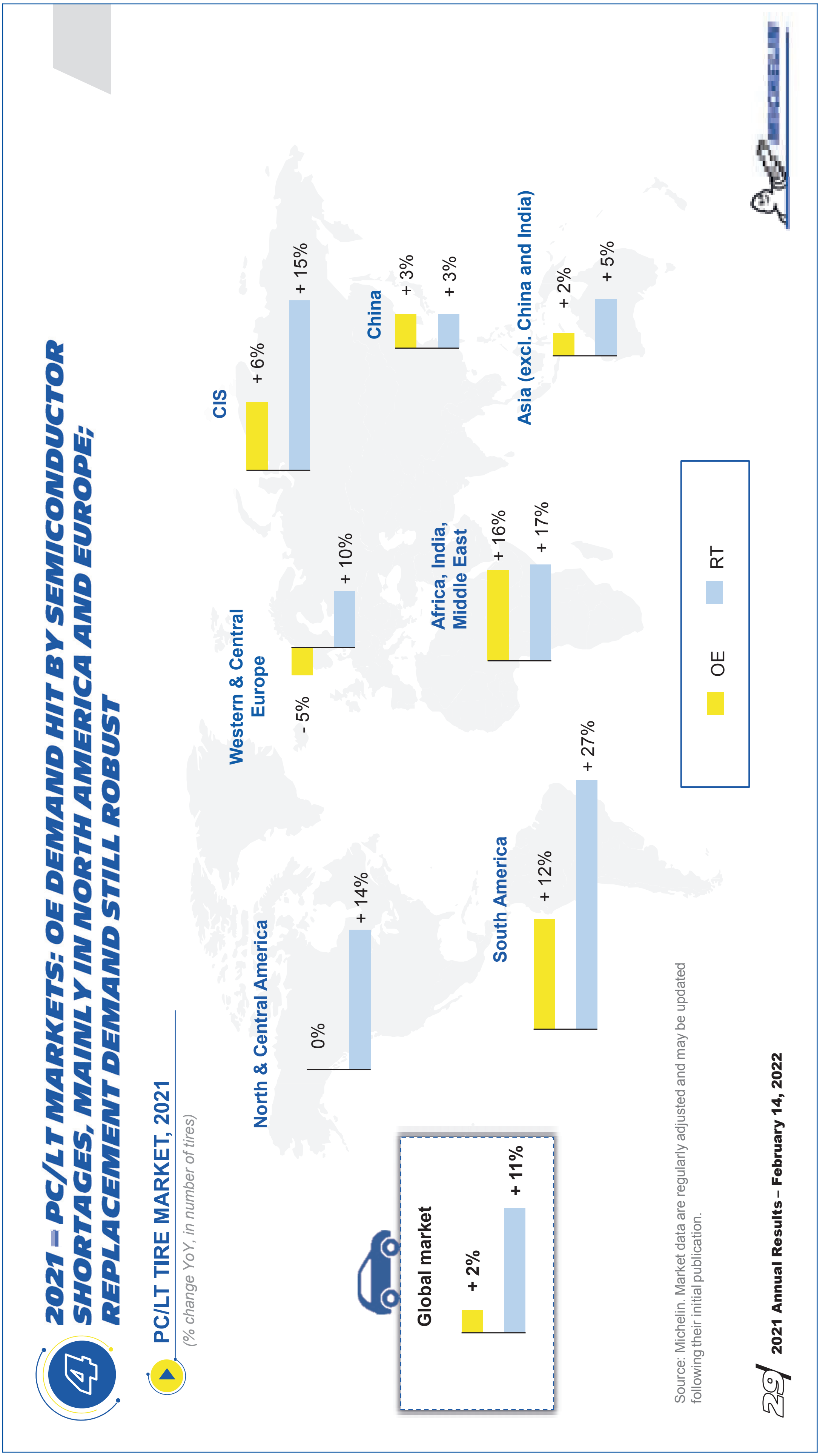

4
APPENDICES
TIRES BUSINESSES
WITH TIRES


4
2021 – PC/LT MARKETS: OE DEMAND HIT BY SEMICONDUCTOR SHORTAGES, MAINLY IN NORTH AMERICA AND EUROPE; REPLACEMENT DEMAND STILL ROBUST
PC/LT TIRE MARKET, 2021
(% change YoY, in number of tires)
Global market
+ 2%
+ 11%
North & Central America
0%
+ 14%
South America
+ 12%
+ 27%
Western & Central Europe
- 5%
+ 10%
Africa, India, Middle East
+ 16%
+ 17%
CIS
+ 6%
+ 15%
China
+ 3%
+ 3%
Asia (excl. China and India)
+ 2%
+ 5%
OE
RT
Source: Michelin. Market data are regularly adjusted and may be updated following their initial publication.
29
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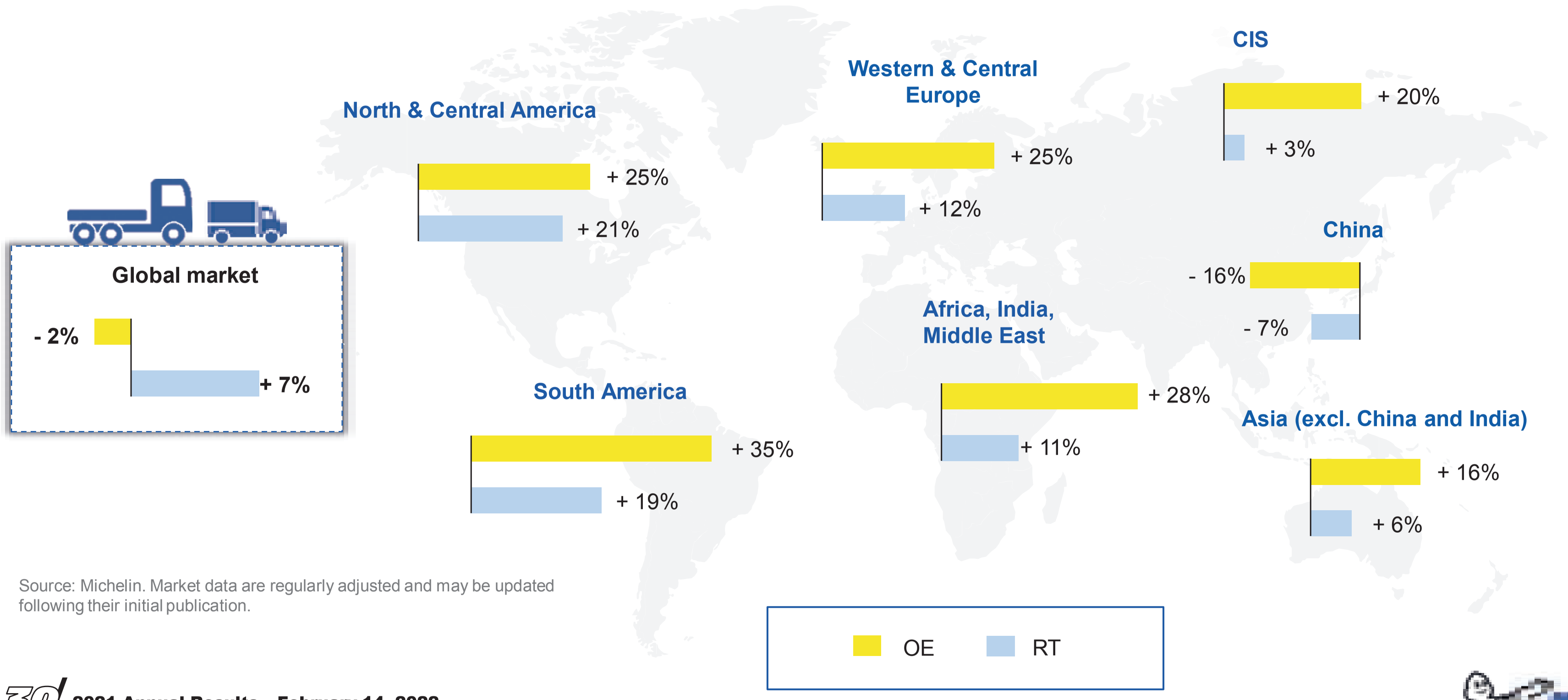
2021 – TRUCK TIRE MARKETS: EXCLUDING CHINA, DEMAND WAS SUPPORTED BY FLEET UPGRADES AND GROWTH IN FREIGHT DEMAND

TRUCK TIRE MARKETS, 2021

(% change YoY, in number of tires)



Source: Michelin. Market data are regularly adjusted and may be updated following their initial publication.

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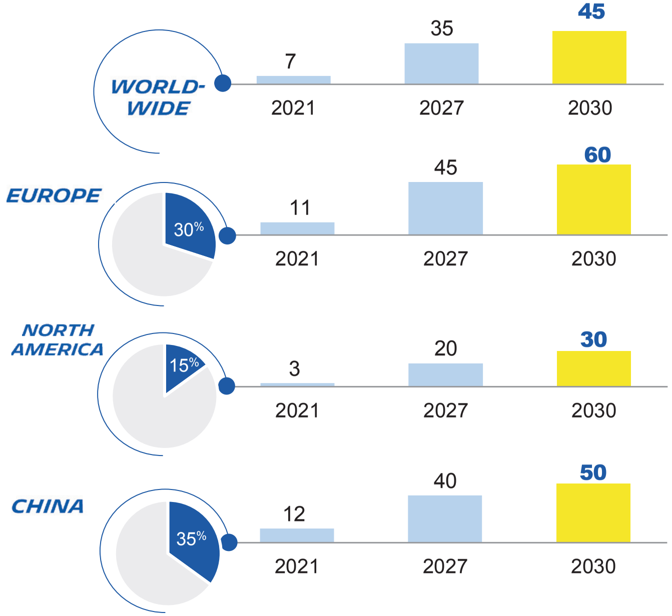
GROWING EV SALES OFFER AN OPPORTUNITY TO MOVE THE TIRE MIX UPMARKET

Strong growth in battery electric vehicle uptake by 2030...

(as a % of total new vehicle sales)

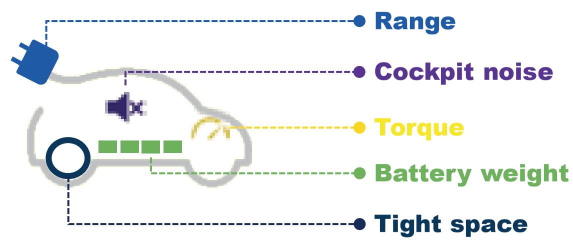


	2021	2027	2030
WORLDWIDE	7	35	45
EUROPE (30%)	11	45	60
NORTH AMERICA (15%)	3	20	30
CHINA (35%)	12	40	50

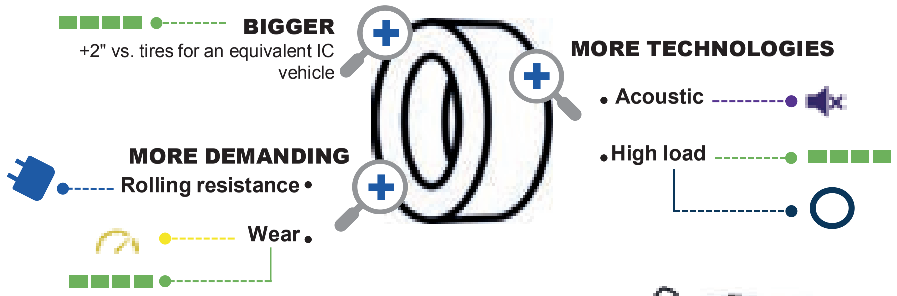
Source: Michelin
* BEV: battery electric vehicle

...will move the tire mix sharply upmarket by raising performance standards

BEV*: HIGHLY DEMANDING VEHICLES



TIRES: HIGHER PERFORMANCE STANDARDS



To know more

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TBC CORPORATION: A SUCCESSFUL INTEGRATION THAT IS ALREADY DELIVERING STRONG CASH FLOWS

OBJECTIVES

Improve customer service

Improve margins and cash flow

INITIATIVES

145 → 112 warehouses
Optimize geographic coverage

Deploy a seamless ERP(1)
system across the JV

Practice price discipline
Reduce SG&A expense
Reduce working capital requirement
- Reduce average DIO by 25% at end-Dec. 2021 vs. Dec. 2019
- Get DSO and DPO under control

OUTCOMES

Integrated supply chain
- Shorter delivery times & lower service costs
- Improved product availability

+54 of NPS(2)
Dec. 2021 vs. Dec. 2019

Margins & cash

(in € millions)	2021		2019	
Sales	4,482		4,401	
EBITDA	321	7.2%	170	3.9%
Net income/(loss)	43	1.0%	(32)	(0.7%)

Early repayment of $200m
in shareholder loans(3) in 2021

0 financial liabilities
to outside lenders

ROBUST ACCESS TO THE NORTH AMERICAN MARKET
TBC = 2ND LEADING WHOLESALER

(1) Enterprise Resource Planning
(2) NTW's Net Promoter Score
(3) Repayment two years ahead of schedule. The $200 million in outstanding capital will be repaid at maturity in 2023, split 50/50 between Michelin and Sumitomo Corporation.

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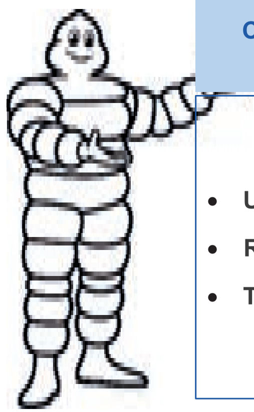
TRUCKS: NEW CHALLENGES AHEAD FUELING GROWTH OPPORTUNITIES ON VALUE CREATIVE MARKETS

Fleets in search of increased efficiency	Acceleration in sustainable transportation	Acceleration in "Last mile delivery"
Additional opportunities with connected vehicles	Original Equipment with the new VECTO standards	E-commerce: +36% of professional vehicles in the city center by 2025*
Connected solutions focused on efficiency	**Solutions to improve environmental footprint**	**Targeted offers for "last mile" fleets**
• **Uptime optimization** • **Reduction of maintenance costs** • **Tracking, routing, etc.**	• **New optimized products:** – Rolling resistance – Sustainable material rate – Long-lasting performance • **Strengthening of the retreading business** • **Michelin Green Mobility / Watea**	• **Renewal of the offering** • **Bespoke solutions for "last mile" fleets:** – Tire delegation – Fleet management



* Source: Accenture Research

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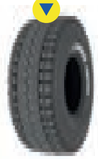
SPECIALTIES: POSITIONED TO CAPTURE CYCLE UPSIDE THROUGH DIFFERENTIATION

Product Differentiation		Service Differentiation
• Performance and braking • Wet grip, for new and used tires	**SAFETY**	• On-site auditing
• Tire resistance • Connected tire (e.g., MEMS or TPMS)	**OPERATIONS CONTINUITY**	• On-site inspections and connected preventive maintenance
• Increase in loads carried and driving speeds • Reduced of compaction of agricultural soils	**OPERATIONS PRODUCTIVITY**	• Real-time monitoring of mining and agricultural tires • Engineering (e.g., conveyors)
• Lower energy consumption and CO_2 emissions • Mass efficiency • Recyclable products	**SUSTAINABILITY**	• End-of-life product management

MICHELIN XDR – 63”



MICHELIN *CEREXBIB 2*

ON-SITE INSPECTION AND MAINTENANCE

solideal on-site service

RECYCLING

enviro

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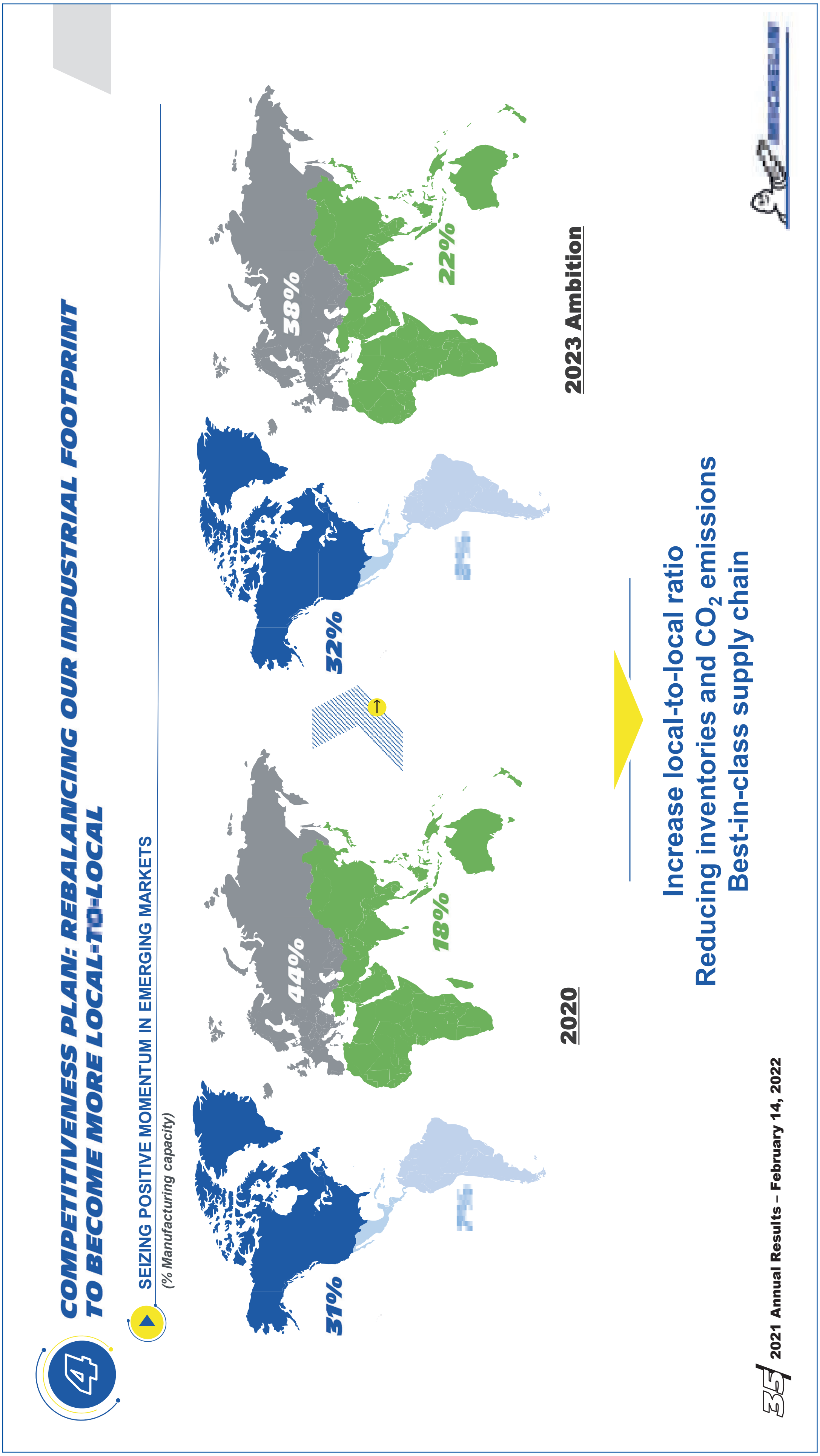
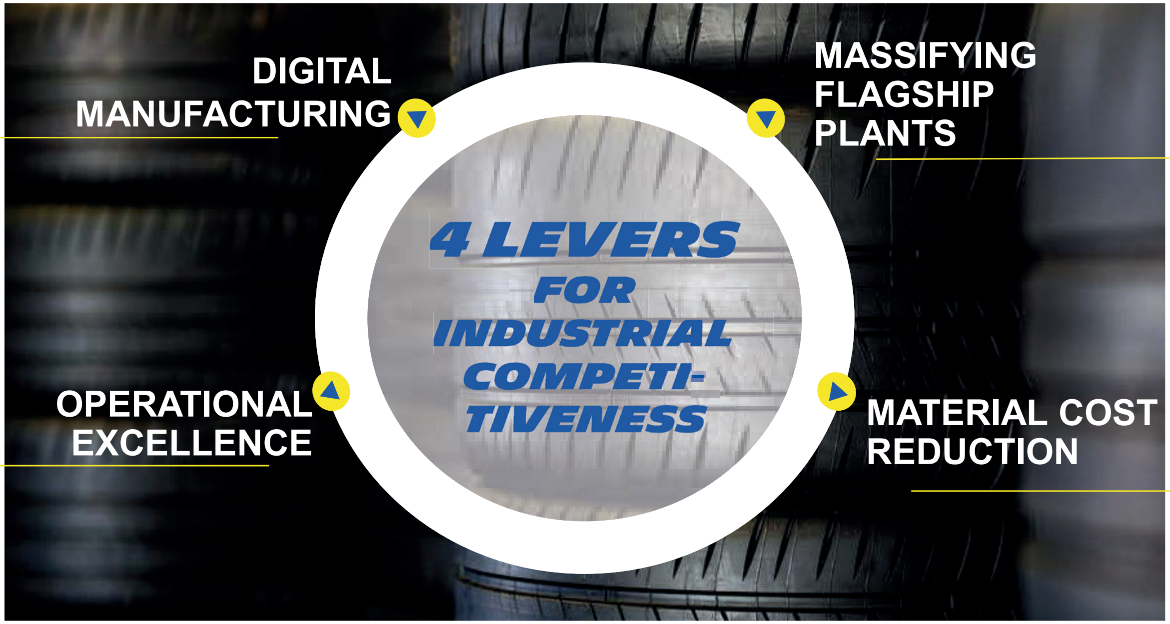

4
COMPETITIVENESS PLAN: REBALANCING OUR INDUSTRIAL FOOTPRINT TO BECOME MORE LOCAL-TO-LOCAL
SEIZING POSITIVE MOMENTUM IN EMERGING MARKETS
(% Manufacturing capacity)
31%
44%
18%
2020
32%
38%
22%
2023 Ambition
Increase local-to-local ratio
Reducing inventories and CO_2 emissions
Best-in-class supply chain
2021 Annual Results – February 14, 2022

MANUFACTURING COMPETITIVENESS PLAN: 4.0 PLANTS TO MAKE OUR INDUSTRY MORE PRODUCTIVE AND FLEXIBLE



Digital manufacturing
- Automation
- Artificial Intelligence

Massifying flagship plants
- Responsiveness
- Cost optimum

In 2025, 16 major sites will have an average production capacity of 140Kt

Operational excellence
- Flexibility
- Simplexity
- Process
- Standardization

Material cost reduction
- Design to cost
- Scrap reduction
- Upstream gains

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SG&A TIRE COMPETITIVENESS PLAN: CONTINUING SIMPLIFICATION ACTIONS TO INCREASE PRODUCTIVITY

INCREASING PRODUCTIVITY

- Leveraging new technologies (AI)
- Digitalizing operations
- Optimizing the industrial footprint

SIMPLIFYING PROCESSES

- Standardizing best practices
- Decision making closer to customers
- Developing shared service centers
- Reengineering end to end processes

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THE GROUP IS CONTINUING TO SUCCESSFULLY INTEGRATE ITS STRATEGIC ACQUISITIONS

SUCCESSFUL INTEGRATIONS *WITH, AROUND* AND *BEYOND TIRES*

AROUND TIRES

In 2021, the Michelin Connected Fleet brand began consolidating all our fleet Services & Solutions under a single identity, thereby stepping up the pooling of Sascar, Masternaut, NexTraq and Michelin resources and platforms.

WITH TIRES

The proportion of Tier 2 brands in total output tripled in 2021 to 55%. These brands offer higher value-added than the Tier 3 brands initially produced by Multistrada. The plant's production capacity is continuing to be expanded according to schedule.

BEYOND TIRES

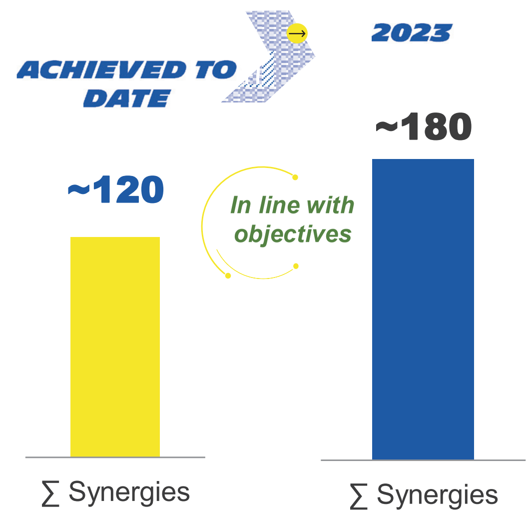
From polymer engineering for medical implants to innovative designs in flexible industrial composites, Michelin is demonstrating its ability to successfully grow *beyond tires*.

WITH TIRES

Pooling sales forces and leveraging the strong fit between Camso and Michelin's offerings have generated additional sales, while reducing selling & administrative costs.

CUMULATIVE NET INCOME SYNERGIES*

(in € millions)



* Over the full year

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4 TIRE AND ROAD WEAR PARTICLES (TRWP): DEFINITION AND STATE OF KNOWLEDGE

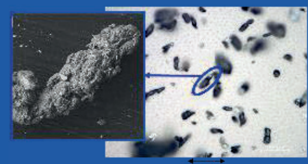
TRWP are tiny debris generated by abrasion from a tire's contact with the road surface. **This abrasion is caused by the tire's grip and keeps the tire safely on the road.**

Scientific studies(1) have started to **measure the environmental impact of TRWP:**

AIR
Studies confirm that TRWP account for only a very small proportion (<1%) of particulate matter pollution

WATER
Studies suggest that TRWP sediment and degrade quickly, so that 50% disappear in 16 months

TRWP



- Composition: mixture of rubber and road surface minerals
- High density: 1.8
- Diameter: ~100 µm (100 times smaller than microplastics)

Michelin strongly favors a regulation that would limit the level of wear particles emissions of all tires worldwide. Michelin contributes with the ETRMA(2) members to the definition of a standardized test method of TRWP emission rate, to eliminate the least performing tires from the market with a threshold regulation.

(1) For more information about TRWP, see the following document, which cites the studies in question
(2) European Tyre & Rubber Manufacturers Association

Dowload the ADAC study
Tyre wear particles in the environment (Dec. 2021)

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APPENDICES
AROUND AND BEYOND TIRES BUSINESSES
4
BEYOND TIRES
AROUND TIRES

4 FIVE ADJACENT ECOSYSTEMS IDENTIFIED AS GROWTH AVENUES

ECOSYSTEMS		PROMISING BUSINESSES	RATIONALE	CONTRIBUTION TO PROFITABLE GROWTH
SERVICES & TECH SOLUTIONS		*Innovate to capture every new opportunity in IoT and emerging technologies*	• Mobility services and digitization: key focus for all Michelin customers	LEADERSHIP POSITION
HIGH-TECH MATERIALS	HIGH-TECH FLEXIBLE COMPOSITES	*Leverage our core business...* *...to develop other areas in which we can play an important role*	• A solid basis to target attractive and synergetic markets	SIGNIFICANT GROWTH
HIGH-TECH MATERIALS	Medical	SOLESIS *Early-maker in Medical, Hydrogen, and 3D Metal Printing...*	• Three promising ecosystems	FINANCIAL VALUE CREATION
HIGH-TECH MATERIALS	Hydrogen	SYMBIO *...with ESG focus and transition towards carbon-free operations*		
HIGH-TECH MATERIALS	3D Metal Printing	AddUp		

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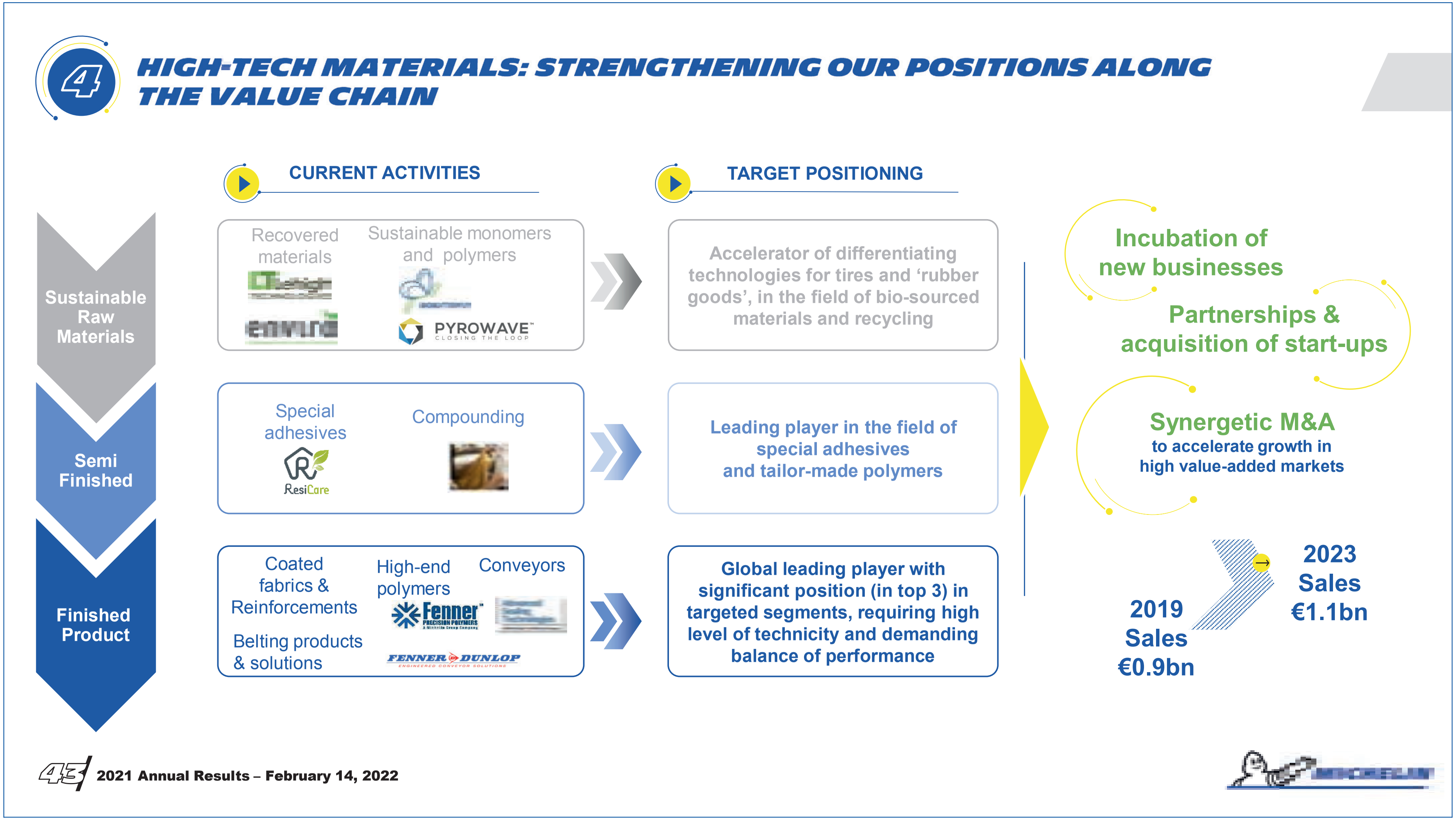
4
SERVICES & SOLUTIONS: DRIVING GROWTH BY CAPITALIZING ON THE DEEP CUSTOMER INTIMACY ACQUIRED IN THE TIRE BUSINESS AND BY LEVERAGING OPPORTUNITIES CREATED BY DIGITALIZATION
STRONG CUSTOMER INTIMACY
WITH TIRES
AROUND TIRES
Tire as a Service
EFFITIRES
MICHELIN® TIRE CARE
DIGITAL TECHNOLOGY TO EXPAND OUR PORTFOLIO OF SOLUTIONS
Fleet management
sascar
NexTraq
EFFITRAILER
WATEA by Michelin
Other fleet services
ONCall
TRUCKFLY by Michelin
Digital services platform
Data and IoT businesses
Fleet management
Make operations safer, more predictable, productive, and sustainable
Help find trustworthy partners and streamline your maintenance services and business processes digitally.
Help customers accelerate their business with smart data and better insights.
2019 Sales €0.6bn
2023 Sales €0.7bn
42
2021 Annual Results – February 14, 2022


4
HIGH-TECH MATERIALS: STRENGTHENING OUR POSITIONS ALONG THE VALUE CHAIN
CURRENT ACTIVITIES
TARGET POSITIONING
Sustainable Raw Materials
Recovered materials
Sustainable monomers and polymers
PYROWAVE
CLOSING THE LOOP
Accelerator of differentiating technologies for tires and 'rubber goods', in the field of bio-sourced materials and recycling
Semi Finished
Special adhesives
ResiCare
Compounding
Leading player in the field of special adhesives and tailor-made polymers
Finished Product
Coated fabrics & Reinforcements
High-end polymers
Conveyors
Fenner
Belting products & solutions
FENNER DUNLOP
Global leading player with significant position (in top 3) in targeted segments, requiring high level of technicity and demanding balance of performance
Incubation of new businesses
Partnerships & acquisition of start-ups
Synergetic M&A
to accelerate growth in high value-added markets
2019
Sales
€0.9bn
2023
Sales
€1.1bn
43
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HIGH-TECH MATERIALS: ACCELERATING THE DEVELOPMENT OF 3 MAIN ECOSYSTEMS THROUGH PARTNERSHIPS FOR SUSTAINABLE GROWTH

REGENERATIVE MEDICINE & CELLULAR THERAPY

SOLESIS

MARKET POTENTIAL

Cell & gene therapy
+20%
CAGR 2020-2030

Cardio medical devices
>10%
CAGR 2020-2030

AMBITIONS (1)

Becoming a **leading innovation and manufacturing partner**
- **Cell therapy**
- **Bioresorbables**
- **Regenerative medicine**

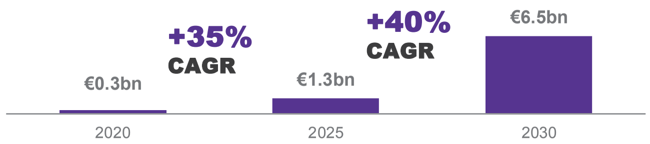
Being **the manufacturing operator customers' trust**

(1) Michelin holds a 49% stake in Solesis (equity-accounted company)

HYDROGEN MOBILITY

SYMBIO
A FAURECIA MICHELIN HYDROGEN COMPANY

MARKET POTENTIAL



AMBITIONS (2)

Becoming a **leader in fuel cell stack systems**

€0.2bn
sales in 2025

€1.5bn
sales in 2030

(2) 100% of Symbio - Michelin holds a 50% stake in Symbio (equity-accounted company)

3D METAL PRINTING

AddUp

MARKET POTENTIAL

Medical & aerospace are the most industrial-scale end markets

+30%
CAGR 2020-2030

~$10bn
in 2030

AMBITIONS (3)

€100m
sales and breakeven by 2023

>€500m
sales by 2030

(3) 100% of AddUp.
Michelin holds a 50% stake in AddUp
(equity-accounted company)

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4
APPENDICES
NON-FINANCIAL PERFORMANCES

4 NATURAL RUBBER: MICHELIN IS STRENGTHENING ITS COMMITMENT TO EFFICIENT, RESPONSIBLE NATURAL RUBBER FARMING

In response to a **fragmented and complex** industry...

Michelin procurement

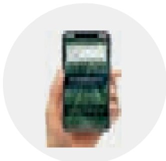
KEY FIGURES

- **~90%** of purchased volumes come from smallholders
- **>140** direct suppliers
- **UP TO 7** middlemen between direct suppliers and smallholders
- **~2M** smallholders serve Michelin
- **~2 HA.** average farm size

...Michelin is strengthening its commitment to a sustainable supply chain

2025 objective: step up sustainability across the industry

- Land rights: more than 95% of identified at-risk supplies apply the principle of free, prior and informed consent.
- Deforestation: more than 95% of identified at-risk supplies apply the zero-deforestation principle.
- Social and environmental risks: more than 70% of procurement volumes are assessed.



Extend assessments of supplier practices across the value chain...

- Direct suppliers via EcoVadis: 94% of volumes assessed at end-2021, of which 79% confirmed as compliant.
- Indirect suppliers via RubberWay: 64% of volumes mapped at end-2021, with a target of 80% in 2022.
- Since 2020, a stronger partnership with WWF for more in-depth analysis of deforestation risks.

...to undertake impactful, real-world projects

- **Brazil** – partnership with WWF: increasing the rubber harvest to have a positive economic impact on 3,800 families in the State of Amazonas, while preserving the forest (6.8 million hectares under management).
- **Indonesia** – partnership with Porsche: improving the skills of 1,000 smallholders identified with the RubberWay™ app.
- **Thailand** – as part of the GPSNR: helping small farmers diversify their sources of income with agroforestry opportunities.
- **Africa** – through SIPH: offering nearly 100,000 farmers a year training in best agricultural practices, workplace health and safety, and environmental issues.

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ENVIRONMENTAL AWARENESS, THROUGHOUT THE LIFECYCLE OF MICHELIN'S PRODUCT, STARTING FROM R&D DESIGN

RAW MATERIALS
Sustainable natural rubber supply

MATERIALS RECYCLING
Recycling systems /
Circular economy
enviro PYROWAVE CARBIOS

ENERGY RECOVERY

END OF LIFE

MANUFACTURING
Reducing impact

LOGISTICS
Reducing the carbon footprint

USE OF PRODUCTS AND SERVICES

63% TO 96% OF THE LIFE CYCLE IMPACT
Low rolling resistance – reduce CO_2 emissions
Safe when new, safe when worn

RETREADING
Substantial savings in raw materials

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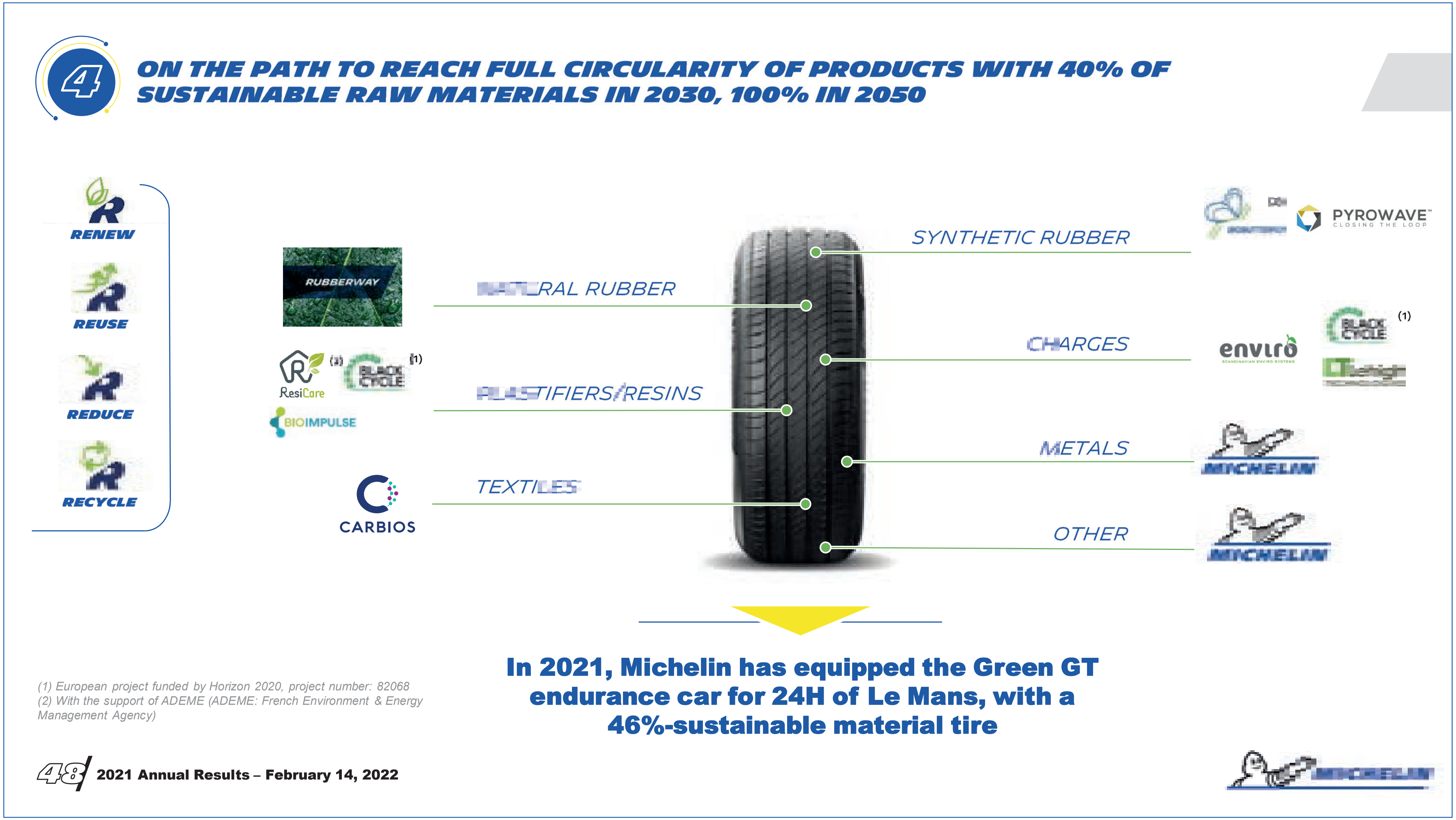
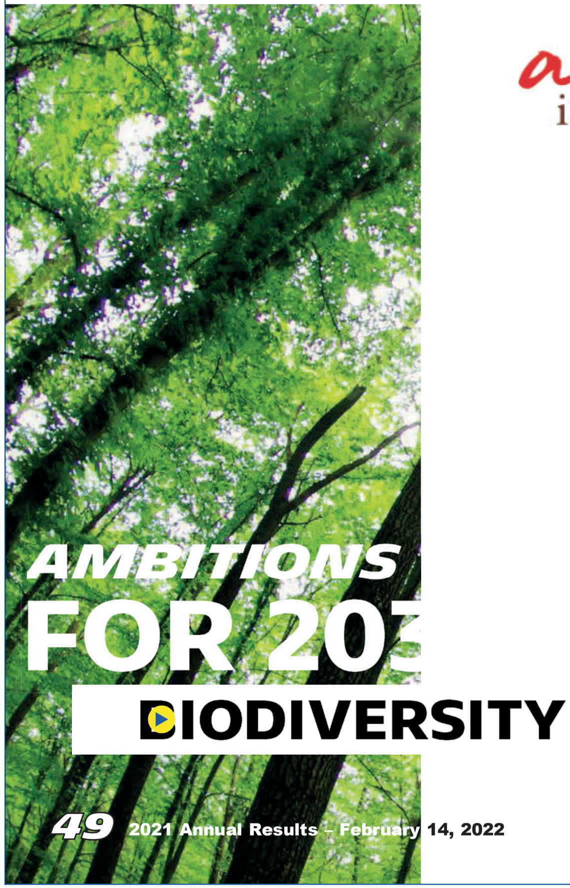

4
ON THE PATH TO REACH FULL CIRCULARITY OF PRODUCTS WITH 40% OF SUSTAINABLE RAW MATERIALS IN 2030, 100% IN 2050
RENEW
REUSE
REDUCE
RECYCLE
RUBBERWAY
RAL RUBBER
ResiCare (2)
BLACK CYCLE (1)
BIOIMPULSE
TIFIERS/RESINS
CARBIOS
TEXTI
SYNTHETIC RUBBER
PYROWAVE CLOSING THE LOOP
CHARGES
enviro
BLACK CYCLE (1)
METALS
MICHELIN
OTHER
MICHELIN
In 2021, Michelin has equipped the Green GT endurance car for 24H of Le Mans, with a 46%-sustainable material tire
(1) European project funded by Horizon 2020, project number: 82068
(2) With the support of ADEME (ADEME: French Environment & Energy Management Agency)
48
2021 Annual Results – February 14, 2022
MICHELIN

4 ENVIRONMENT PROTECTION: MICHELIN IS A LEADER IN ACTING FOR BIODIVERSITY PROTECTION



act4nature international

(1) Replacement of pesticides and fertilizers by mechanical methods combined with other alternative solutions

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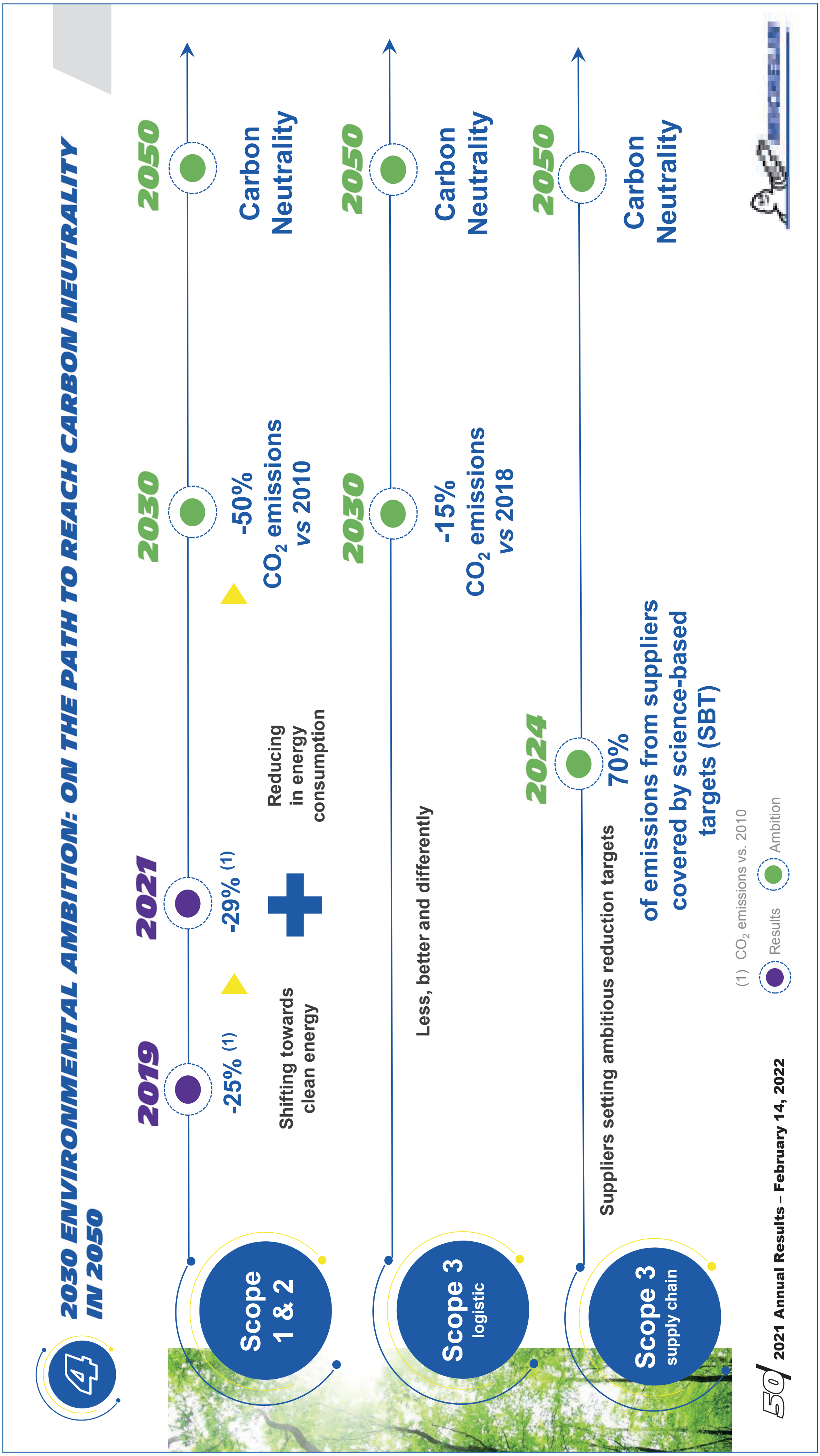
MICHELIN


4
2030 ENVIRONMENTAL AMBITION: ON THE PATH TO REACH CARBON NEUTRALITY IN 2050
Scope 1 & 2
2019
-25% (1)
Shifting towards clean energy
2021
-29% (1)
Reducing in energy consumption
2030
-50% CO_2 emissions vs 2010
2050
Carbon Neutrality
Scope 3 logistic
Less, better and differently
2030
-15% CO_2 emissions vs 2018
2050
Carbon Neutrality
Scope 3 supply chain
Suppliers setting ambitious reduction targets
2024
70% of emissions from suppliers covered by science-based targets (SBT)
2050
Carbon Neutrality
(1) CO_2 emissions vs. 2010
Results
Ambition
2021 Annual Results – February 14, 2022

INDUSTRIAL ENVIRONMENTAL PERFORMANCE: STRONG PROGRESS IN 2021 TOWARD 2030 OBJECTIVES

i-MEP (1)
INDUSTRIAL
Michelin Environmental Performance

2030 OBJECTIVES

REDUCTION OF THE INDUSTRIAL ENVIRONMENTAL IMPACT BY 1/3 (1) THROUGH **5 PROGRAMS**

2021: 92.6

2019 : 100

	2021 vs. 2019	2030 objectives
WATER WITHDRAWALS	-7% (m^3/t weighted by water stress index)	-33% (2) (m3/t weighted by water stress index)
GENERATED WASTE	-8% (kg/t)	-25% (2) (kg/t)
ORGANIC SOLVENT CONSUMPTION	-14% (kg/t)	-50% (2) (kg/t)
ENERGY CONSUMPTION	-0.4% (GJ/t)	-37% (3) (GJ/t)
CO_2 EMISSION	-8% (t)	-50% (3) (t)

(1) i-MEP definition, see p.150 of the 2020 Universal Registration Document

(2) vs 2019
(3) vs 2010
/t = ratio basis on semi-finished or finished products volumes

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4
DIVERSITY AND INCLUSION: PROGRESS ON ALL INDICATORS IN 2021, DEMONSTRATING THE GROUP'S COMMITMENT
IMDI (1)
2021
67/100
+5 pts
vs. 2020
EQUAL OPPORTUNITY
Every employee can develop his/her talents within the company. Michelin pays particular attention to the internal promotion of manufacturing operators.
GENDER BALANCE
Achieve parity among Group executives and, by 2030, set the gender balance benchmark in our industry.
DISABILITY
Michelin offers career paths to people of all abilities according to its talent development policy.
IDENTITY
(All D&I* aspects, e.g., age, sexual orientation, ethnicity, religion, etc.)
Enable every person to be who they really are and to bring their authentic selves to work.
* Diversity & Inclusion
MULTI-NATIONAL MANAGEMENT
All our host country nationalities and cultures are represented in all corporate functions in the operating regions and at headquarters, in line with the geographical footprint of each business.
(1) Inclusion and Diversities Management Index, see p. 174 of the 2020 Universal Registration Document
52
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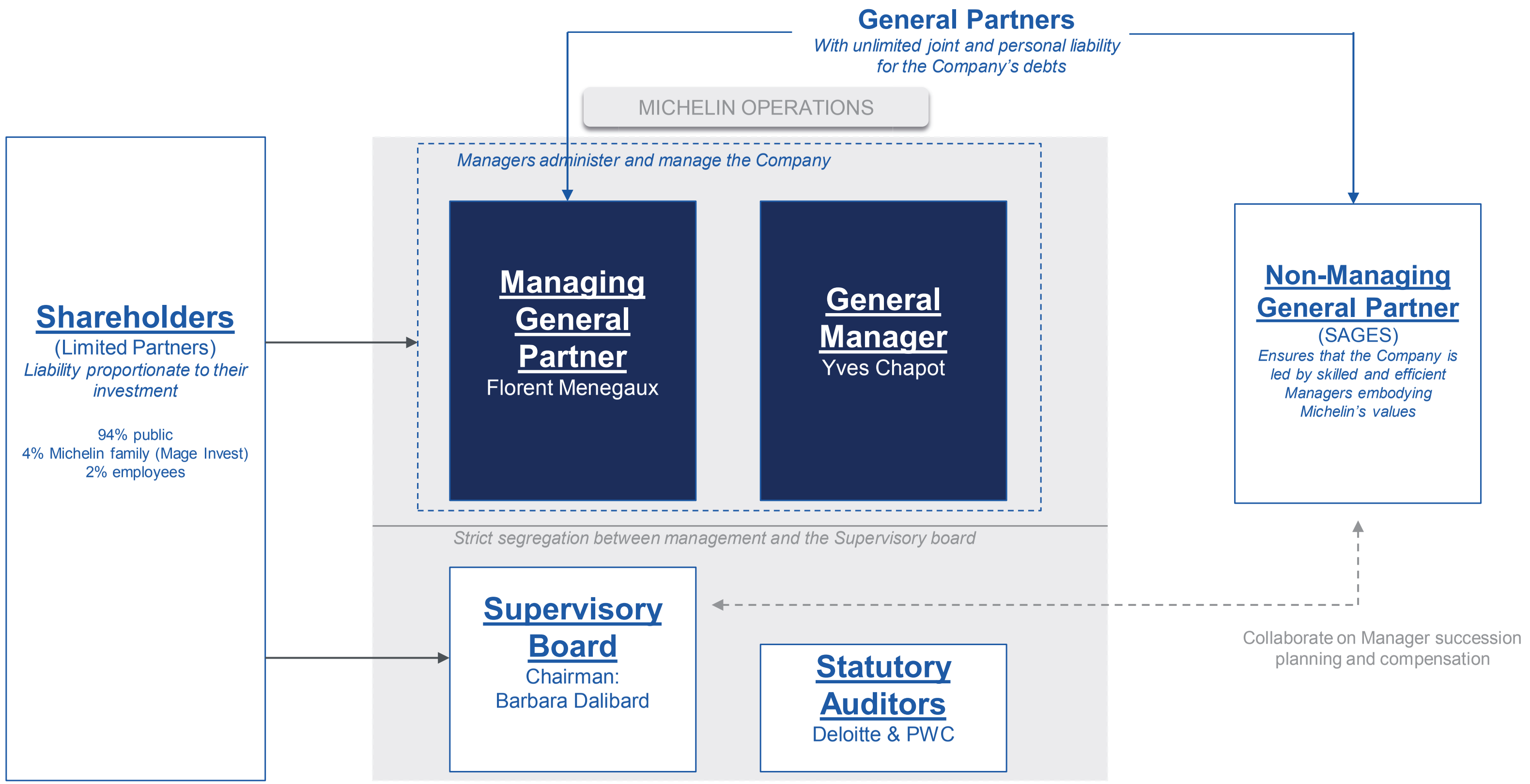
MICHELIN GOUVERNANCE PILLARS: CLEAR SEGREGATION OF DUTIES, DOUBLE CHECK AND BALANCE OVERSIGHT



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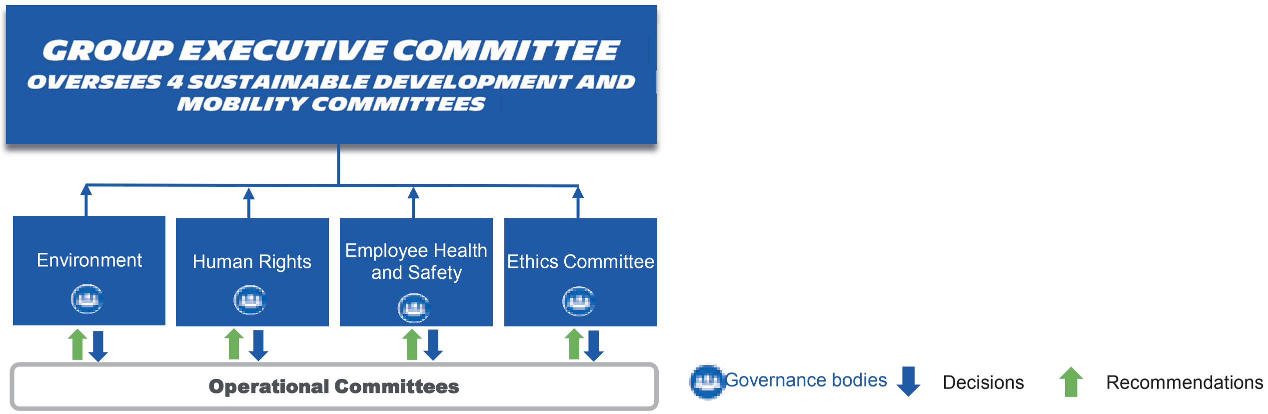
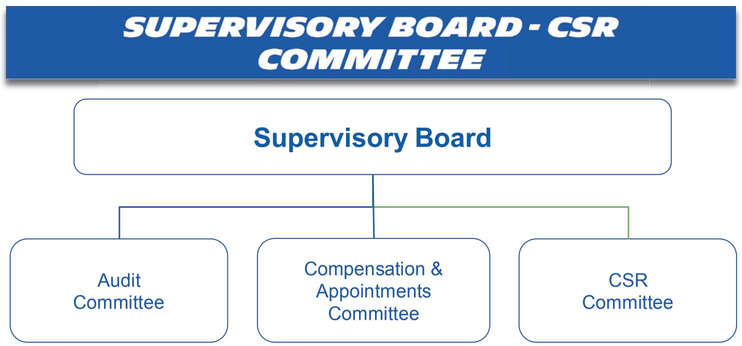
ESG AWARENESS AND OVERSIGHT ARE FULLY EMBODIED IN MICHELIN'S GOVERNANCE STRUCTURE





STAKEHOLDERS COMMITTEE

At the corporate executive level, a Stakeholders Committee set up in 2016 brings together 12 people representative of the Group's leading stakeholders, including suppliers, investors, unions, customers and NGOs. Four continents are represented on the Committee, which meets with the Executive Committee for a full day at least once per year.

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ESG IS MANAGED AT HIGHEST LEVEL BY AN INCENTIVIZED TEAM

Florent Menegaux, Managing Chairman, compensation for 2021

Fixed compensation

€900,000

Annual variable compensation

0 to 20% of profit shares

The annual variable component is fully integrated in the profit shares

Quantitative criteria

0 to 16% of the profit shares

Quantitative and qualitative criteria:

1. Group's **strategic** deployment
2. **Employee safety**
3. **Synergies** from acquisitions

0 to 4% of the profit shares

Performance shares rights

Subject to performance conditions over 3 years

✓ Allocation limited to 0.05% of the Company's share capital
✓ Maximum set at 100% of annual fixed compensation

1. **Market performance: Michelin's share price** vs. change in Stoxx Europe 600 index (annual average)

Weight: 30%

2. **CSR performance**
- i-MEP, industrial – Michelin Environmental Performance
- Employee engagement

Weight: 40%

3. **Operational performance: Sales growth** (excluding tires and distribution) **and ROCE**

Weight: 30%

ESG incentives

Each criterion has:
- A threshold below which no amount is awarded
- An intermediate tranche between the threshold and the target ceiling, giving access to an amount ranging between the minimum and maximum on a straight-line basis
- A target ceiling, giving access to the maximum amount for the criterion

➢ Obligation to hold **40% of the vested shares** during the entire term of office
➢ The allocated shares may vest subject to the following condition: the profit shares have been paid during the fiscal year preceding the year in which the shares are issued

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4
APPENDICES
OTHER FINANCIAL INDICATORS

4 SALES BY CURRENCY AND SEGMENT OPERATING INCOME (SOI) IMPACT

% of sales (2021)		2021 € change vs. currency	*Dropthrough** sales / SOI
USD	36%	+ 3.7%	35% / 45%
EUR	32%	-	-
CNY	6%	- 3.0%	25% / 30%
AUD	3%	- 4.7%	80% / 85%
GBP	3%	- 3.2%	25% / 30%
BRL	3%	+ 9.5%	-30% / -20%
CAD	3%	- 3.0%	25% / 30%
RUB	2%	+ 6.4%	25% / 30%
JPY	1%	+ 6.6%	80% / 85%

% of sales (2021)		2021 € change vs. currency	*Dropthrough** sales / SOI
MXN	1%	- 1.6%	80% / 85%
TRY	0,9%	+28.5%	25% / 30%
THB	0,9%	+ 5.9%	-130% / -100%
CLP	0,8%	-0.8%	80% / 85%
SEK	0,7%	- 3.2%	80% / 85%
TWD	0,6%	-1.6%	80% / 85%
ZAR	0,5%	- 6.4%	80% / 85%
ARS	0,3%	+ 40.9%	80% / 85%
COP	0,2%	+ 5.3%	80% / 85%
Others	4,5%	-	-

** dropthrough linked to the export/manufacturing/sales base*

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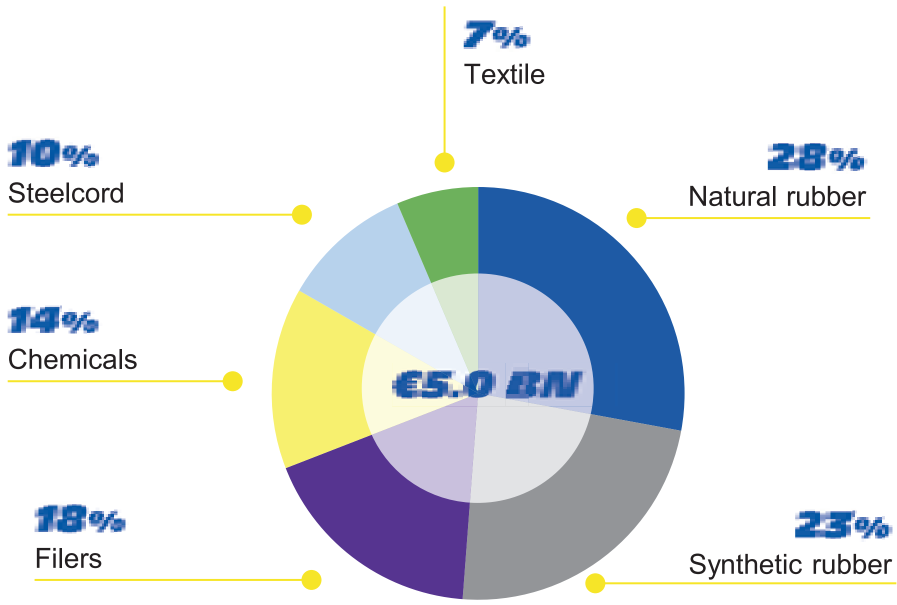
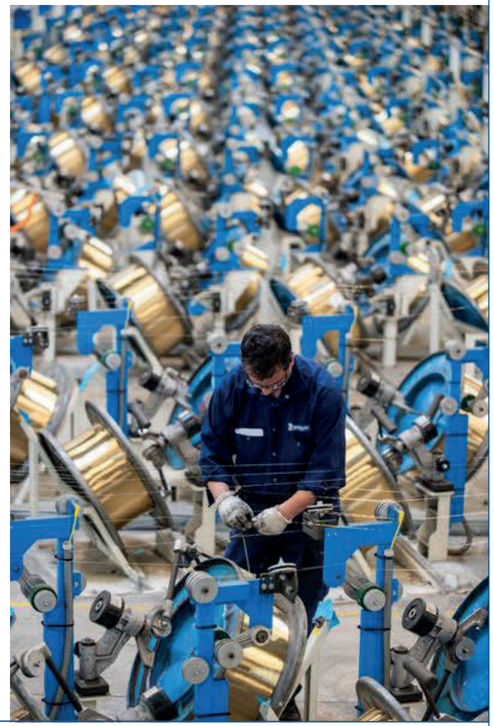
4 RAW MATERIALS

COST OF RAW MATERIAL USED IN PRODUCTION IN 2021





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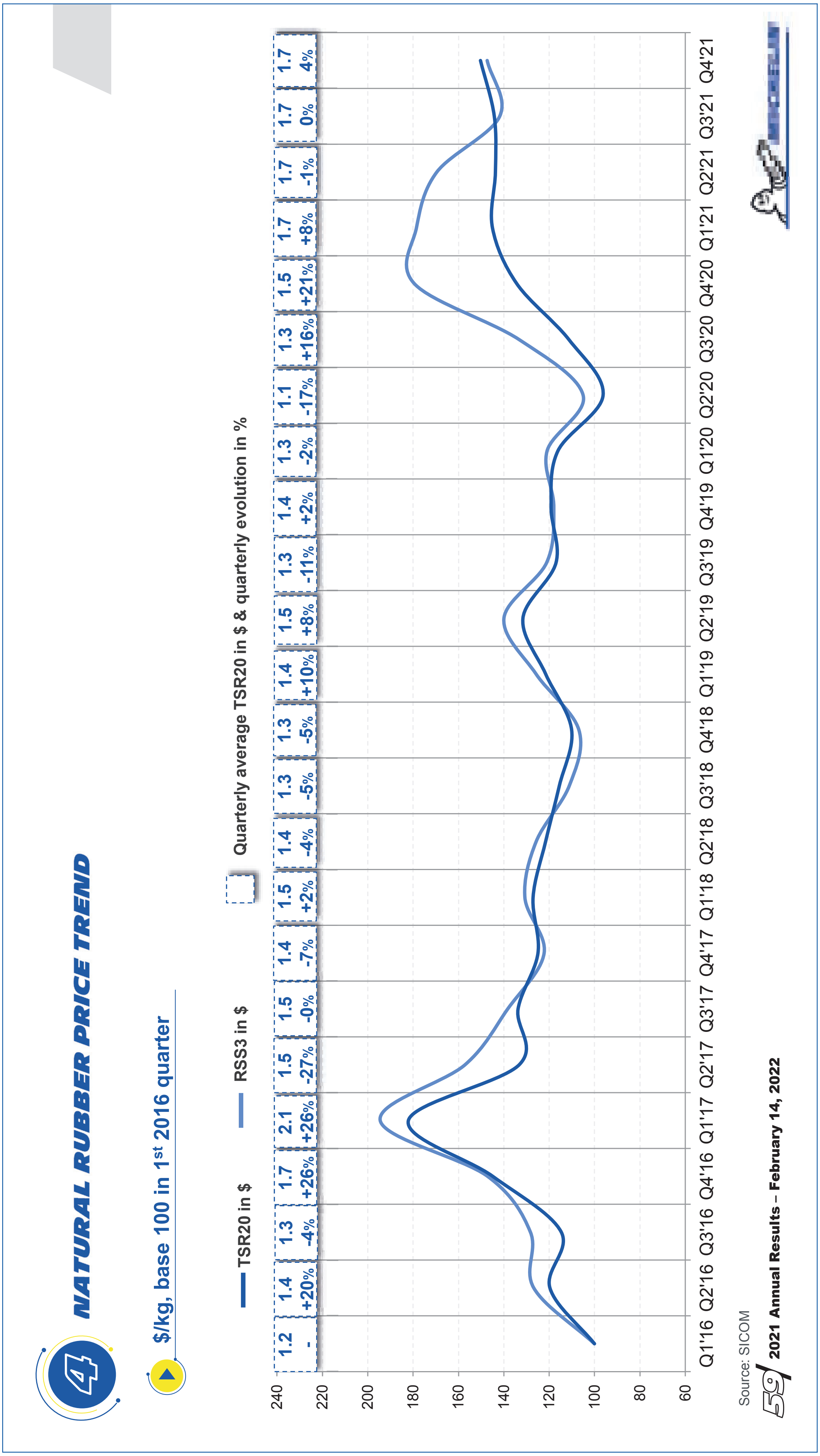
4
NATURAL RUBBER PRICE TREND
$/kg, base 100 in 1st 2016 quarter
TSR20 in $
RSS3 in $
Quarterly average TSR20 in $ & quarterly evolution in %
1.2 -
1.4 +20%
1.3 -4%
1.7 +26%
2.1 +26%
1.5 -27%
1.5 -0%
1.4 -7%
1.5 +2%
1.4 -4%
1.3 -5%
1.3 -5%
1.4 +10%
1.5 +8%
1.3 -11%
1.4 +2%
1.3 -2%
1.1 -17%
1.3 +16%
1.5 +21%
1.7 +8%
1.7 -1%
1.7 0%
1.7 4%
240
220
200
180
160
140
120
100
80
60
Q1'16 Q2'16 Q3'16 Q4'16 Q1'17 Q2'17 Q3'17 Q4'17 Q1'18 Q2'18 Q3'18 Q4'18 Q1'19 Q2'19 Q3'19 Q4'19 Q1'20 Q2'20 Q3'20 Q4'20 Q1'21 Q2'21 Q3'21 Q4'21
Source: SICOM
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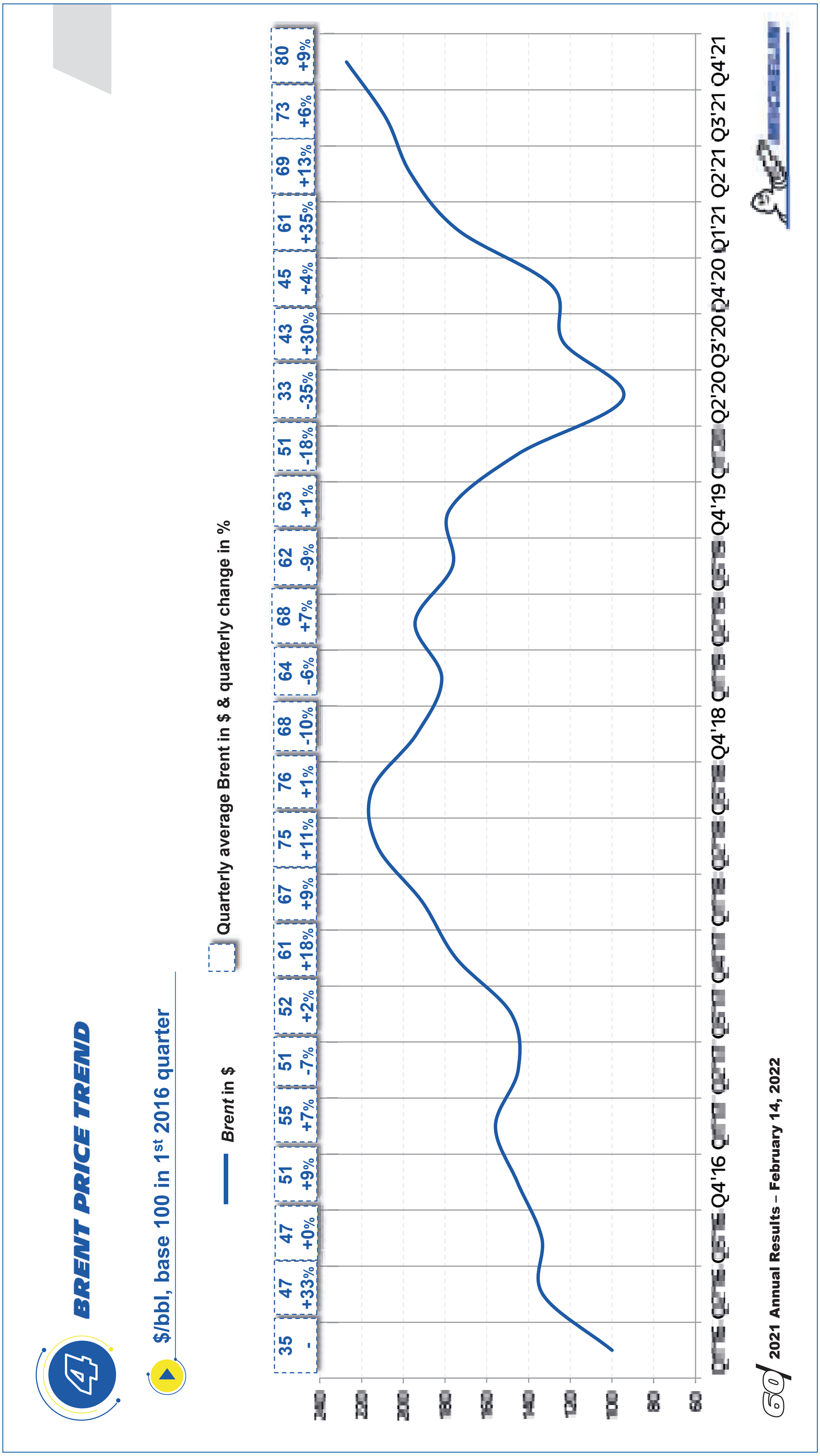
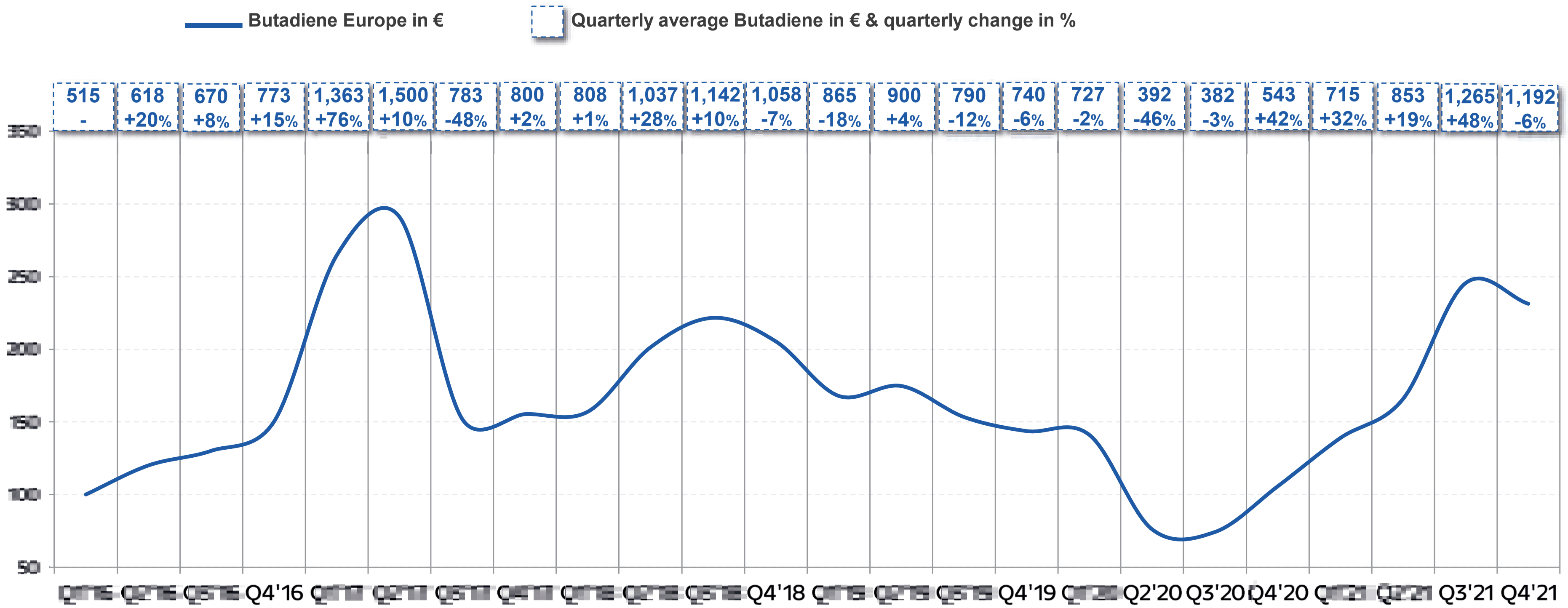

4
BRENT PRICE TREND
$/bbl, base 100 in 1st 2016 quarter
Brent in $
Quarterly average Brent in $ & quarterly change in %
35 -
47 +33%
47 +0%
51 +9%
55 +7%
51 -7%
52 +2%
61 +18%
67 +9%
75 +11%
76 +1%
68 -10%
64 -6%
68 +7%
62 -9%
63 +1%
51 -18%
33 -35%
43 +30%
45 +4%
61 +35%
69 +13%
73 +6%
80 +9%
Q4'16
Q4'18
Q4'19
Q2'20
Q3'20
Q4'20
Q1'21
Q2'21
Q3'21
Q4'21
2021 Annual Results – February 14, 2022

4 BUTADIENE PRICE TREND

€/t, base 100 in 1st 2016 quarter



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4 OUTSTANDING BOND ISSUES (AS OF DECEMBER 31, 2021)

Issuer	Compagnie Générale des Établissements MICHELIN										
Issue	Senior Note	Senior Note	Senior Note	Senior Note	Senior Note	Senior Note	Senior Note	Senior Note	Senior Note	Senior Note	Senior Note
Type	Convertible	Bond	Convertible	Bond	Bond	Bond	Bond	Bond	Bond	Bond	Bond
Principal Amount	**$ 592.2m**	**€ 300m**	**$ 600m**	**€ 750m**	**€ 300m**	**€ 500m**	**€ 1,000m**	**€ 500m**	**€ 750m**	**€ 500m**	**€ 302m**
Offering price	100% & 103.85%	99.97%	95.50%	99.10%	99.081%	99.89%	99.262%	99.54%	99.363%	99.46%	98.926%
Rating corporation at Issuance date	A- (S&P) A3 (Moody's)	BBB+ (S&P) A3 (Moody's)	A- (S&P) A3 (Moody's)	A- (S&P) A3 (Moody's)	BBB+ (S&P) A3 (Moody's)	A- (S&P) A- (Fitch)	A- (S&P) A3 (Moody's)	A- (S&P) A- (Fitch)	A- (S&P) A3 (Moody's)	A- (S&P) A- (Fitch)	A- (S&P) A3 (Moody's)
Current corporation rating	A- (S&P) ; A3 (Moody's) ; A- (Fitch)										
Coupon	ZERO Conv premium 128%	1.125% p.a	ZERO Conv premium 130%	0.875% p.a	1.750% p.a	0.000% p.a	1.750% p.a	0.250% p.a	2.500% p.a	0.625% p.a	3.250% p.a
Issue Date	10-jan.-17 & 05-may-17	28-may-15	10-jan.-18	3-sept.-18	28-may-15	2-nov.-20	3-sept.-18	2-nov.-20	3-sept.-18	2-nov.-20	30-sept.-15 & 30-sept.-16
Maturity	10-jan.-22	28-may-22	10-nov.-23	3-sept.-25	28-may-27	2-nov.-28	3-sept.-30	2-nov.-32	3-sept.-38	2-nov.-40	30-sept.-45
Interest payment	N/A	Annual May 28	N/A	Annual Sept 03	Annual May 28	Annual Nov 02	Annual Sept 03	Annual Nov 02	Annual Sept 03	Annual Nov 02	Annual Sept 30
ISIN	FR0013230745	XS1233732194	FR0013309184	FR0013357845	XS1233734562	FR0014000D31	FR0013357852	FR0014000D49	FR0013357860	FR0014000D56	XS1298728707
Denomination	$ 200'000 with min. tradable amount $ 200'000	€ 1'000 with min. tradable amount € 1'000	$ 200'000 with min. tradable amount $ 200'000	€ 100'000 with min. tradable amount € 100'000	€ 1'000 with min. tradable amount € 1'000	€ 100'000 with min. tradable amount € 100'000	€ 100'000 with min. tradable amount € 100'000	€ 100'000 with min. tradable amount € 100'000	€ 100'000 with min. tradable amount € 100'000	€ 100'000 with min. tradable amount € 100'000	€ 1'000 with min. tradable amount € 1'000

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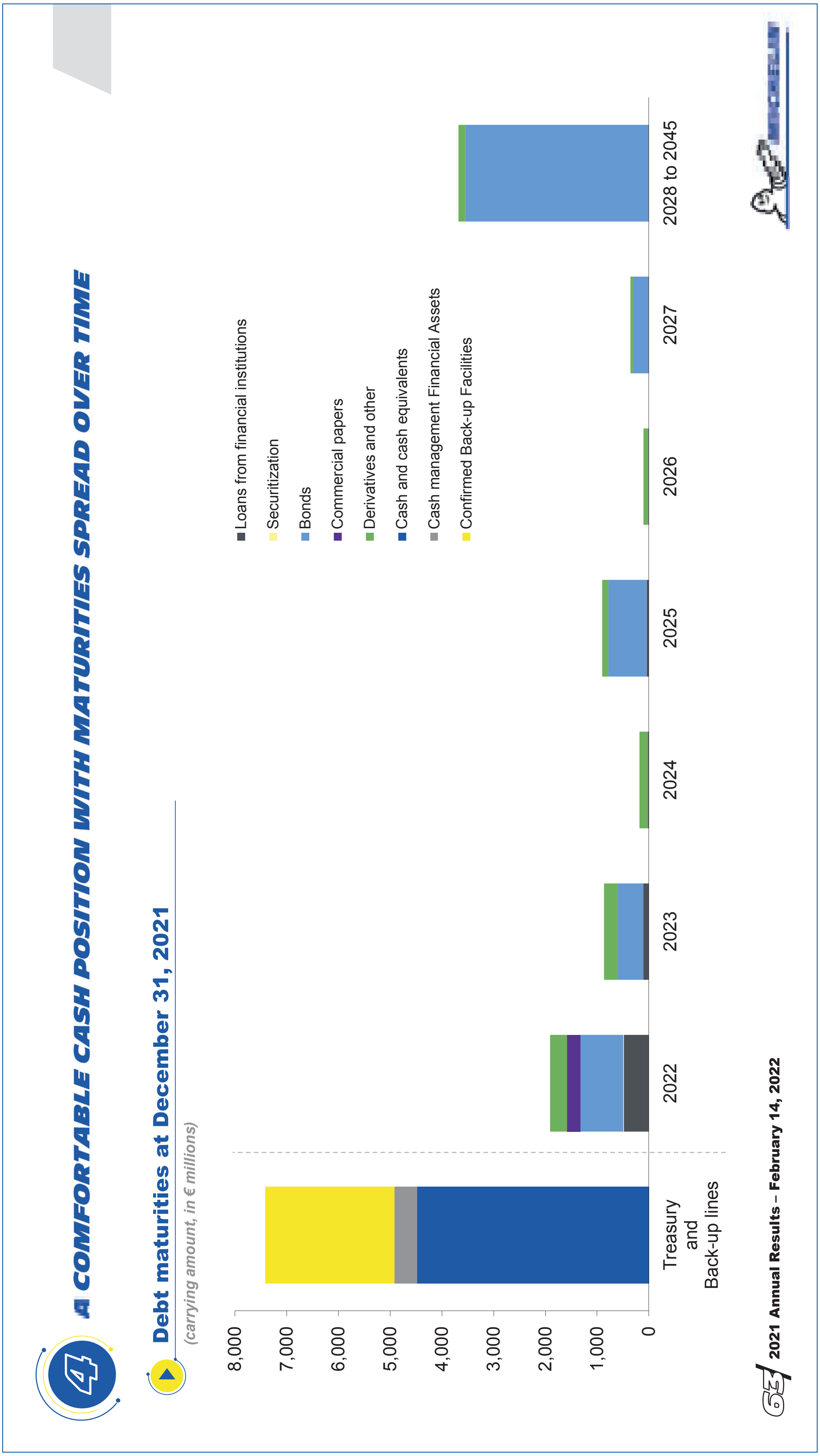
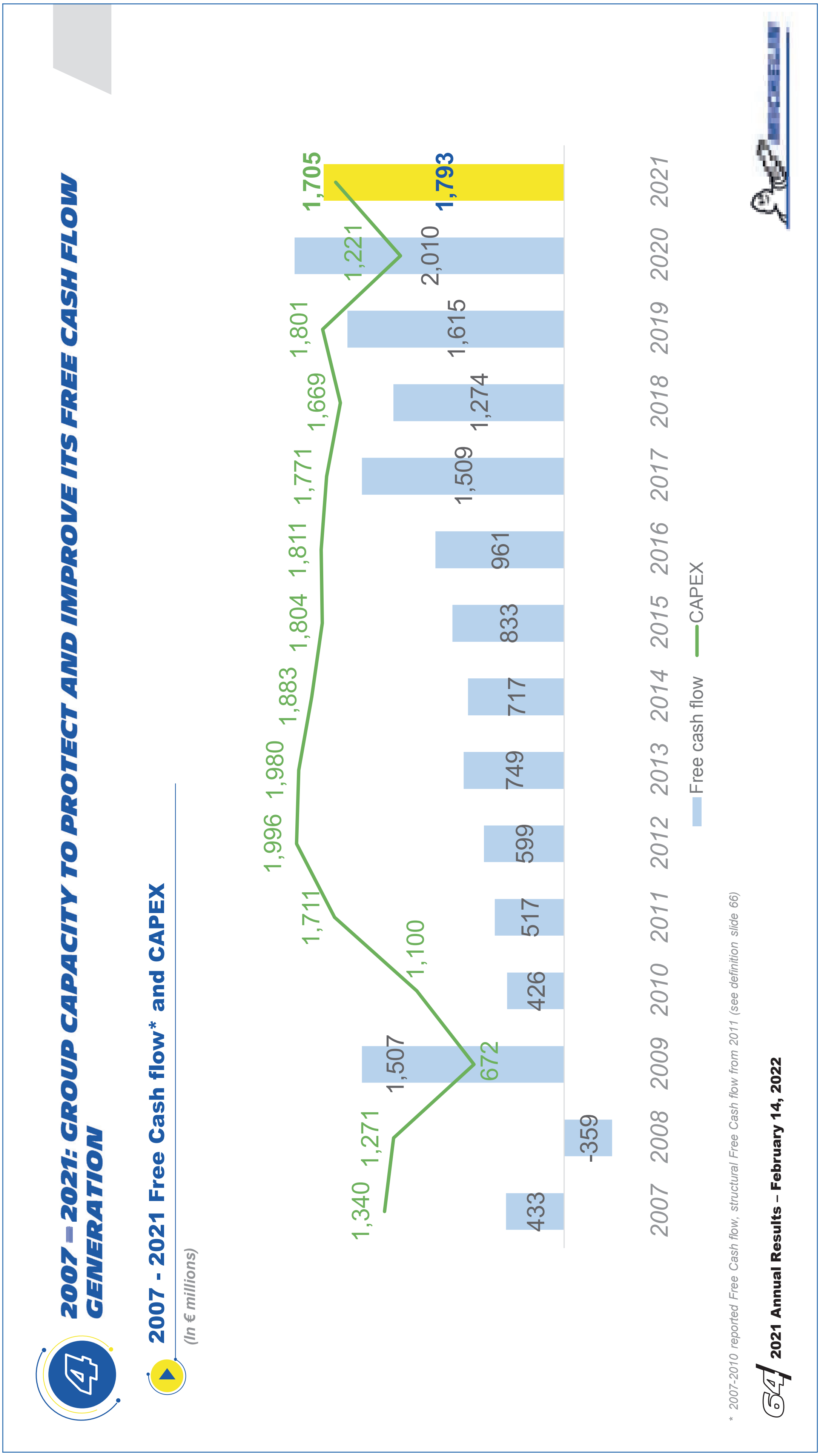
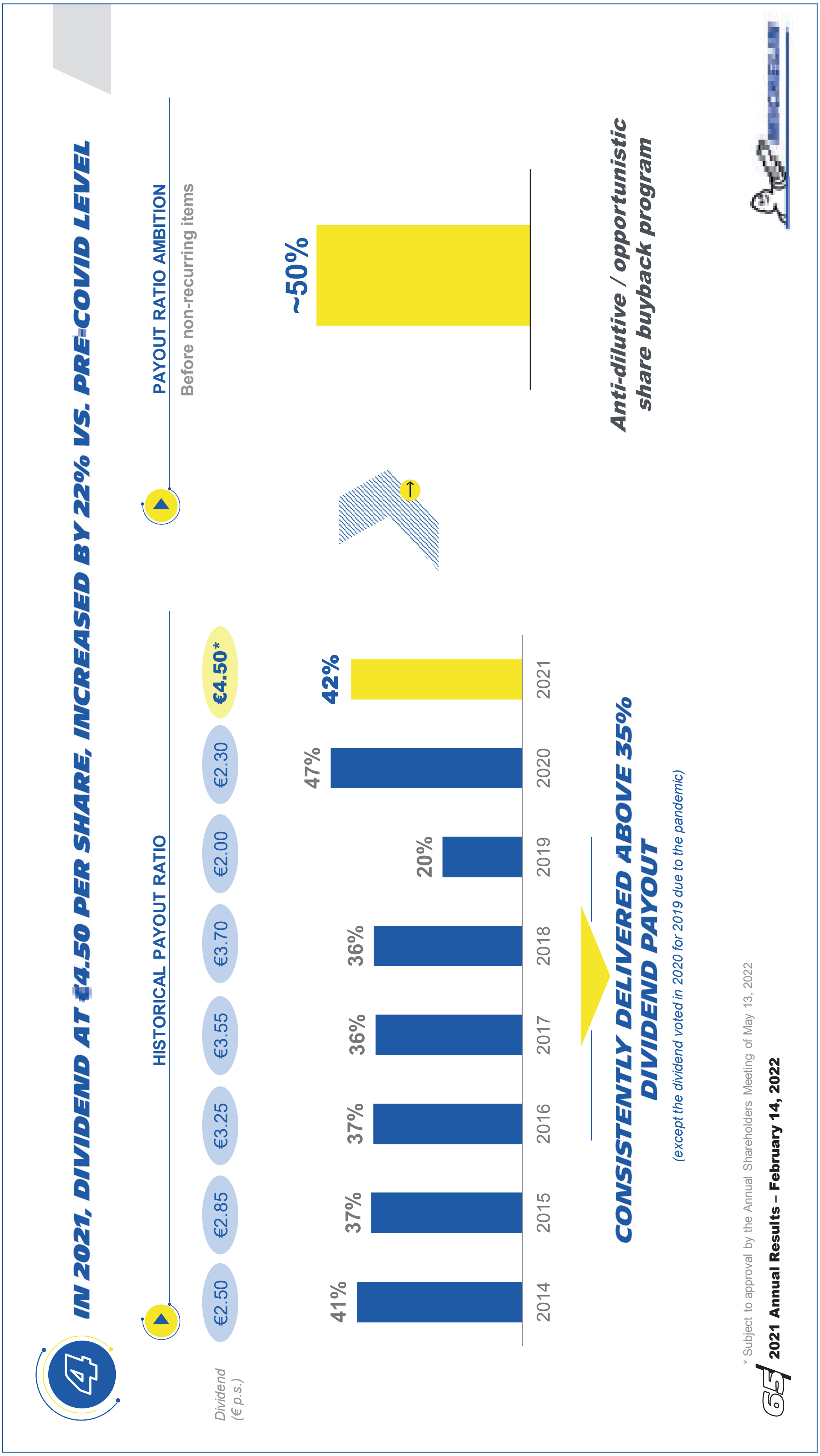

4
A COMFORTABLE CASH POSITION WITH MATURITIES SPREAD OVER TIME
Debt maturities at December 31, 2021
(carrying amount, in € millions)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Treasury and Back-up lines
2022
2023
2024
2025
2026
2027
2028 to 2045
Loans from financial institutions
Securitization
Bonds
Commercial papers
Derivatives and other
Cash and cash equivalents
Cash management Financial Assets
Confirmed Back-up Facilities
63
2021 Annual Results – February 14, 2022


2007 – 2021: GROUP CAPACITY TO PROTECT AND IMPROVE ITS FREE CASH FLOW GENERATION
4
2007 - 2021 Free Cash flow* and CAPEX
(In € millions)
433
-359
1,507
426
517
599
749
717
833
961
1,509
1,274
1,615
2,010
1,793
1,340
1,271
672
1,100
1,711
1,996
1,980
1,883
1,804
1,811
1,771
1,669
1,801
1,221
1,705
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Free cash flow
CAPEX
* 2007-2010 reported Free Cash flow, structural Free Cash flow from 2011 (see definition slide 66)
64
2021 Annual Results – February 14, 2022


4
IN 2021, DIVIDEND AT €4.50 PER SHARE, INCREASED BY 22% VS. PRE-COVID LEVEL
HISTORICAL PAYOUT RATIO
Dividend (€ p.s.)
€2.50
€2.85
€3.25
€3.55
€3.70
€2.00
€2.30
€4.50*
41%
37%
37%
36%
36%
20%
47%
42%
2014
2015
2016
2017
2018
2019
2020
2021
CONSISTENTLY DELIVERED ABOVE 35% DIVIDEND PAYOUT
(except the dividend voted in 2020 for 2019 due to the pandemic)
PAYOUT RATIO AMBITION
Before non-recurring items
~50%
Anti-dilutive / opportunistic share buyback program
* Subject to approval by the Annual Shareholders Meeting of May 13, 2022
2021 Annual Results – February 14, 2022

GLOSSARY

Free Cash Flow (FCF)
+ M&A
= Free Cash Flow before M&A
+/- Adjusted for the impact of changes in raw materials costs
= Structural Free Cash Flow

Free cash flow (FCF)

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.

Structural free cash flow

Corresponds to free cash flow before acquisitions, adjusted for the impact of changes in raw materials costs on trade payables, trade receivables and inventories.

ROCE

Return on capital employed is measured as follows:

- net operating profit after tax (NOPAT)(1), calculated at a standard tax rate of 25%, corresponding to the Group's average effective tax rate;
- divided by average economic assets employed during the year (2), i.e., all of the Group's intangible assets, property, plant and equipment, loans and deposits, investments in equity-accounted companies, and net working capital requirement.

Tires sales

Correspond to sales from Michelin's core business, including the Tire as a Service (TaaS) business and Distribution operations.

Non-tire sales

Correspond to sales from the Services and Solutions (excluding TaaS and Distribution), Conveyor Belts and High-Tech Materials businesses, excluding joint ventures.

(1) NOPAT = Segment operating income + amortization of acquired intangible assets + the Group's share of profit from equity-accounted companies.
(2) Average between the opening and closing balance sheets for the year.

2021 Annual Results – February 14, 2022

DISCLAIMER

"This presentation is not an offer to purchase or a solicitation to recommend the purchase of Michelin shares. To obtain more detailed information on Michelin, please consult the documents filed in France with Autorité des marchés financiers, which are also available from the http://www.michelin.com/en/ website.

This presentation may contain a number of forward-looking statements. Although the Company believes that these statements are based on reasonable assumptions as at the time of publishing this document, they are by nature subject to risks and contingencies liable to translate into a difference between actual data and the forecasts made or inferred by these statements."

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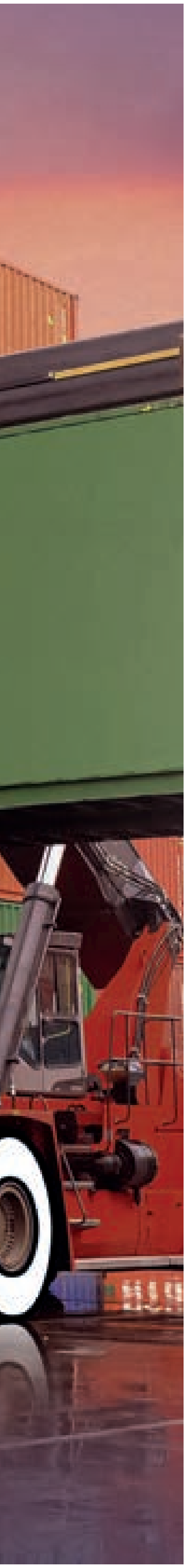
03

REPORT OF THE MANAGERS



COVID-19: IMPACT OF THE HEALTH CRISIS ON THE GROUP'S OPERATIONS IN 2021

In 2021, the world transitioned from a state of sudden shock and a worldwide economy supported by governments and central banks to a possible "new normal," to which the Michelin Group successfully adapted thanks to the strength of its assets and the unflagging commitment of its teams.

After the unprecedented slowdown in global demand that shaped 2020, tire markets generally returned to pre-crisis levels in 2021, with the exception of:

- automotive Original Equipment tire markets, which were hard hit by sluggish new vehicles production, dampened by the worldwide shortage of semiconductors;
- aircraft tire markets, due to the severe disruptions in air traffic as mobility restrictions were introduced in response to new variants.

Details of demand in each market may be found in section 3.1 Tire markets below.

Initiatives undertaken to attenuate the impact of the health crisis while securing business continuity

All the Group's host regions were affected by Covid-19 during the year. Following on from the initiatives undertaken in 2020, the Group continued to focus on its two core priorities: protecting the health and safety of its employees and partners and doing everything necessary to ensure business continuity.

The resulting protective measures resulted in additional costs over the year that, while lower than in 2020, were nevertheless significant. The total cost of purchasing and producing face masks, providing hand sanitizer and cleaning and disinfecting business premises came to €26 million in 2021, versus €96 million in 2020.

In addition, plant productivity and production capacity were curtailed by Covid-19-related absences among employees, social distancing rules and the time spent on cleaning and disinfecting plant premises and production equipment. In all, implementation of health protocols in the plants resulted in the loss of an equivalent three days of production over the year, compared to the 2019 baseline.

The Group also took care to ensure strict compliance with national or local work-from-home directives, guaranteeing that every employee concerned had the resources required to perform his or her tasks remotely. In addition, the Group provided vaccination to all employees who wished to receive them, meaning that more than 35,000 vaccines were distributed in Asia, including India. Beside these Covid-related arrangements, Michelin signed multi-year agreements with the unions that offer employees in compatible jobs, and in compliance with local legislation, the opportunity of contractualizing, over time, their working from home either occasionally or on a regular basis.

Impact of the health crisis on the Group's business operations in 2021

In addition to the sales lost to the temporary restrictions on mobility during the year, the Covid-19 crisis considerably disrupted the Group's business operations in 2021.

All the supply chains were thrown into disarray, primarily due to severe constrictions in the maritime shipping industry. The robust upturn in global demand, combined with a shortage of cargo space (many shipowners had taken advantage of the 2020 decline in business to start upgrading their fleets) and the closure of certain ports due to Covid-19, caused extensive slowdowns across the supply chain, tightening raw material supplies and crimping the Group's ability to ship from its plants. In response, some 15 crisis cells were formed and operated around the clock to deal with supply chain issues during the year.

This situation particularly impacted the off-the-road business, which operates major production facilities in Sri Lanka, and sales of surface mining tires, which are shipped primarily from the United States.

In addition, during the first nine months of the year, the Group occasionally used alternative more costly logistics solutions to secure the supply of raw materials to Europe and the Americas, thereby avoiding any cutbacks in production.

2021 was also shaped by labor shortages that impacted the manufacturing operations of both the Group and its suppliers. In addition to Covid-related absences, labor markets were very tight over the year, especially in the United States. Hiring difficulties also exacerbated the above-mentioned disruptions in the maritime supply chains, with a shortage of truck drivers slowing the return of empty containers to ports. While government financial support may have temporarily delayed the return to work, it is also possible that, in a more structural way, these hiring difficulties arose from certain Covid-related social changes that have created a new relationship to work.

The strong rebound in global demand in 2021 also spurred a sharp run-up in raw material and energy costs, in addition to the steep increase in supply chain costs. Over the full year, the Group faced approximately €1.2 billion in additional costs, which it successfully offset with productivity gains, assertive price management and a higher value product mix.

Lastly, the combination of labor shortages, supply chain disruptions and electronic component supply outages prevented the Group from completing all its initially planned capital projects and investments during the year.

In the face of these severe disruptions, the Group never ceased operating throughout the year, attesting to the soundness and efficiency of its business continuity procedures, particularly those concerning business interruption risks in the production plants and supply continuity risks, as described in section 2 of the Universal Registration Document.

As was the case in 2020, the Group did not request any form of public support, such as government-backed loans or longer payment deadlines, in 2021.

Impact on the Group's strategic objectives

Spiraling costs and supply chain disruptions have not undermined Michelin's strategic vision nor the resources deployed to meet its objectives. Convinced of the validity of its strategic model, the Group has gained in strength during the crisis and reaffirms that its "All Sustainable" vision represents the keystone of its future performance.

As the world's population rises and increasingly lives in large urban communities, the need to transport people and goods is going to grow significantly in the decades ahead. In response, the farming, construction and mining industries will be called upon to meet the expanding needs for food, infrastructure and the metals required to decarbonize value chains. The two-wheel tire businesses will continue to benefit from the surging popularity of soft mobility and recreational activities.

Tire-related services and solutions, which were more resilient in 2020 and less exposed to supply chain disruptions than the tire business in 2021, will continue to realize their strong growth potential. These solutions help to optimize tire use and enhance Michelin's intimacy with its dealer and end-user customers, while supporting safer, more sustainable mobility.

Although it is too soon to assess the impact of the crisis on the emergence of new practices, certain underlying trends that were already driving change before the pandemic seem to be gaining new momentum. This is particularly the case for the energy transition, one of whose major vectors is the electrification of mobility. Michelin is firmly positioned as the market leader in EV tires, where its technological advance enables it to meet all the needs of this new, fast-growing market. In addition, Michelin is stepping up the development of solutions that support this transition to electric powertrains, both for corporate fleets and for automakers.

Lastly, the Group is continuing to digitalize and automate its plants. These capital expenditures, which are vitally necessary to prepare the production facilities to meet the challenges of tomorrow, could prove to be especially critical if the hiring difficulties in manufacturing turn out to be structural and long-lasting.

3.1 TIRE MARKETS

3.1.1 A GLOBAL MARKET WORTH SOME $153 BILLION[1] IN 2020

At a time of sharply slowing demand due to the Covid-19 crisis, the global tire market totaled $153 billion in 2020, representing an 8% decline from 2019. Light-vehicle tires accounted for around 60% of total sales and truck tires 30%[2]. By volume, the market represented nearly 1.4 billion car and light truck tires and a little more than 200 million truck and bus tires[2].

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

In 2021, demand generally returned to 2019 levels, except in the Aircraft tire market and in the Original Equipment Automotive segment, which was hard hit by semiconductor shortages in the second half of the year.

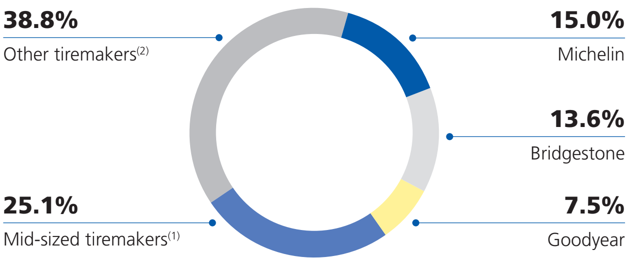
Longer term, tire demand is likely to expand by 0-2% a year in mature markets and by 2-4% a year in the new markets. In this environment, Michelin is targeting growing, high value-added market segments, such as the premium segment for its Automotive business and specialty markets.

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 and countries around the world. Similar systems with minimum tire performance standards and regulated labeling systems are also under consideration in China, the United States and India.

In addition, environmental legislation requiring car and truck manufacturers to reduce CO_2 emissions is helping to drive demand for low rolling resistance tires, of which Michelin is a world-leading manufacturer. For example, the VECTO model now required under European Union regulations integrates the real value of tire rolling resistance as one of the parameters for calculating truck CO_2 emissions.

THE GLOBAL TIRE MARKET BY MANUFACTURER IN 2020

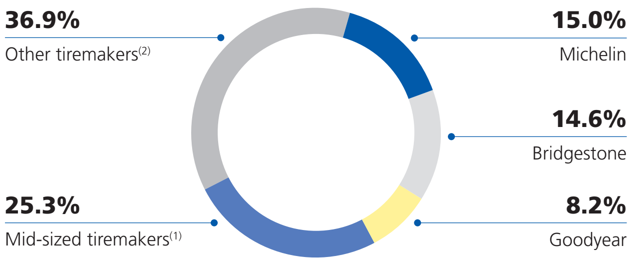


Source: 2020 sales in US dollars, published in Tire Business, *August 2021.*

(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.*

THE GLOBAL TIRE MARKET BY MANUFACTURER IN 2019



Source: 2019 sales in US dollars, published in Tire Business, *August 2020.*

(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.*

3.1.2 TIRE MARKETS IN 2021

In 2021, a sharp upturn in economic activity drove a robust first-half rebound in tire demand off of favorable prior-year comparatives, which had been impacted by the restrictions on freedom of movement in place during 2020. The second half saw more contrasting trends, with (i) the Passenger car and Light truck tire market edging back by a slight 5% as semiconductor shortages weighed on Original Equipment demand and Replacement sales held steady; and (ii) Truck tire demand rising by 5% outside China but plunging 35% in China from exceptionally high prior-year levels, which had been lifted by buying ahead of implementation of the China 6 emissions standard.

Prior-year comparatives were mixed, but Specialty tire markets generally rebounded in 2021, particularly in the Agricultural, Construction and Materials Handling Original Equipment segments.

Methodological note: Tire market estimates reflect sell-in (sales of manufacturers to dealers and automakers) 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.

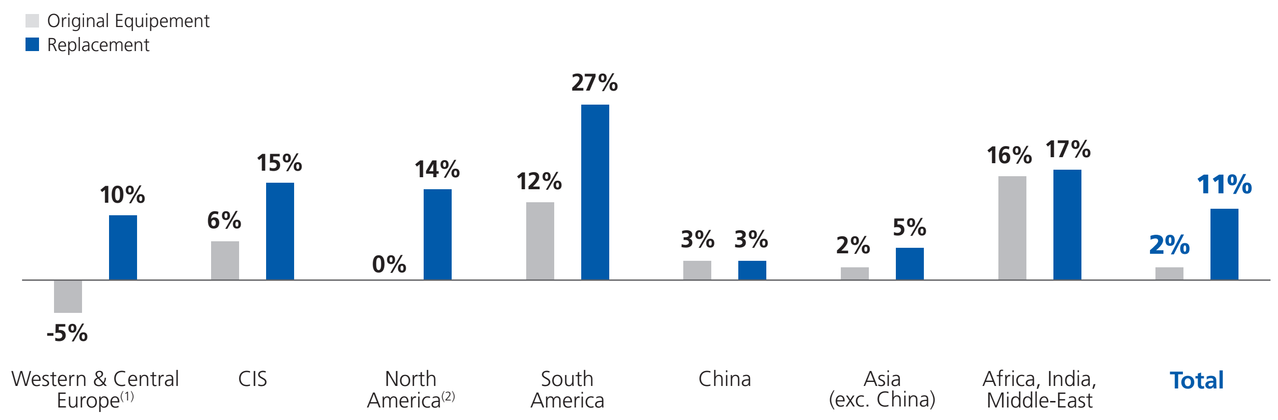
(1) *Source:* Tire Business.

(2) *Michelin estimates.*

3.1.3 PASSENGER CAR AND LIGHT TRUCK TIRE MARKETS IN 2021

The global Original Equipment and Replacement **Passenger car and Light truck** tire market rose by 9% in number of tires sold in 2021, but ended the year 4% lower than in 2019.

THE GLOBAL PASSENGER CAR AND LIGHT TRUCK TIRE MARKET, 2021 VS. 2020



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

3.1.3.1 Original Equipment

After expanding a strong 28% in the first half due to low comparatives (caused by automotive plant shutdowns in first-half 2020), Original Equipment tire demand was heavily impacted in the second half by the worsening global shortage of semiconductors, which led to a 17% decline for the period. By quarter, demand fell a steep 19% in the third before recovering slightly to a 14% contraction in the fourth, following a relative easing of chip shortages in North America and China.

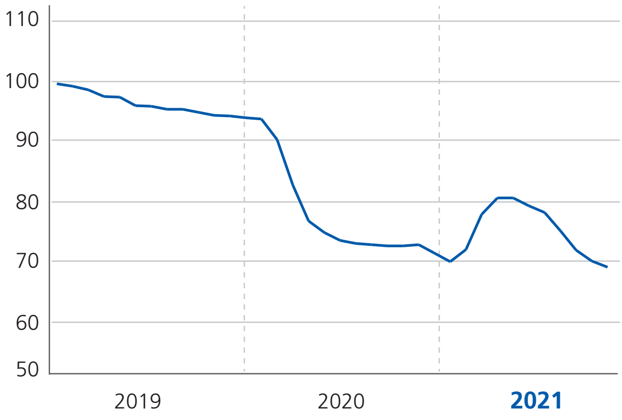
In all, the global OE tire market ended 2021 down 15% on 2019.

Passenger car and Light truck tire markets Original Equipment *(in millions of tires)*	**2021**	**2020**	**2021/2020**	**Second-half 2021/2020**	**Fourth-quarter 2021/2020**	**Third-quarter 2021/2020**	**First-half 2021/2020**	**Second-quarter 2021/2020**	**First-quarter 2021/2020**
Western and Central Europe[1]	67	71	-5%	-28%	-27%	-29%	+25%	+93%	-4%
CIS	7	7	+6%	-16%	-18%	-14%	+38%	+80%	+11%
North America[2]	62	63	0%	-22%	-17%	-26%	+32%	+132%	-4%
South America	12	11	+12%	-14%	-16%	-12%	+57%	+282%	+3%
China	115	112	+3%	-10%	-4%	-17%	+23%	-7%	+78%
Asia (excluding China)	65	64	+2%	-13%	-10%	-16%	+20%	+55%	-1%
Africa/India/Middle-East	28	25	+16%	-14%	-30%	+5%	+64%	+195%	+20%
TOTAL	**356**	**353**	**+2%**	**-17%**	**-14%**	**-19%**	**+28%**	**+48%**	**+14%**

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

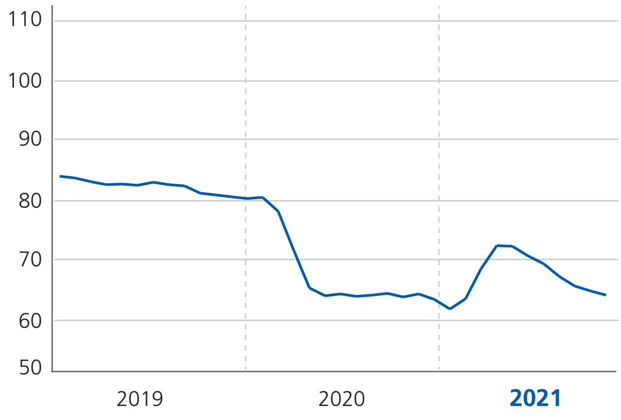
In every region, market growth was lifted by favorable comparatives in the first half and adversely impacted by global semiconductor shortages in the second. Nevertheless, by end-2021, only the **Chinese market** had returned more or less to 2019 levels, with just a 1% decline for the year. Elsewhere, markets contracted by 17% in **the rest of Asia**, 21% in **North America** and 27% in **Western Europe**.

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.

3.1.3.2 Replacement

After surging 27% off of very favorable comparatives in the first half, global Replacement tire demand was stable year-on-year in the second six-month period and ended the year on a par with 2019.

Passenger car and Light truck tire markets Replacement *(in millions of tires)*	2021	2020	2021/2020	Second-half 2021/2020	Fourth-quarter 2021/2020	Third-quarter 2021/2020	First-half 2021/2020	Second-quarter 2021/2020	First-quarter 2021/2020
Western and Central Europe(1)	315	287	+10%	0%	+3%	-2%	+22%	+44%	+6%
CIS	61	53	+15%	+10%	+2%	+16%	+21%	+57%	-1%
North America(2)	327	288	+14%	-3%	-7%	+2%	+38%	+76%	+10%
South America	68	54	+27%	+13%	-1%	+30%	+44%	+97%	+15%
China	136	132	+3%	-7%	-4%	-9%	+15%	-2%	+38%
Asia (excluding China)	141	134	+5%	-1%	+2%	-5%	+13%	+22%	+5%
Africa/India/Middle-East	106	91	+17%	+3%	0%	+6%	+36%	+94%	+4%
TOTAL	**1,154**	**1,039**	**+11%**	**0%**	**-1%**	**+1%**	**+27%**	**+48%**	**+10%**

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

After rebounding a sharp 22% in the first half and declining by a slight 2% in the third quarter, tire demand in **Europe (excluding the CIS)** rose by 3% in the fourth quarter to end the year up 10% on 2020. The fourth quarter saw strong market growth in France (up 8%), Germany (up 6%) and Central Europe. Demand in the United Kingdom fell 10% from the prior-year period, which had been buoyed by the massive buildup of dealer inventory ahead of Brexit on January 1, 2021.

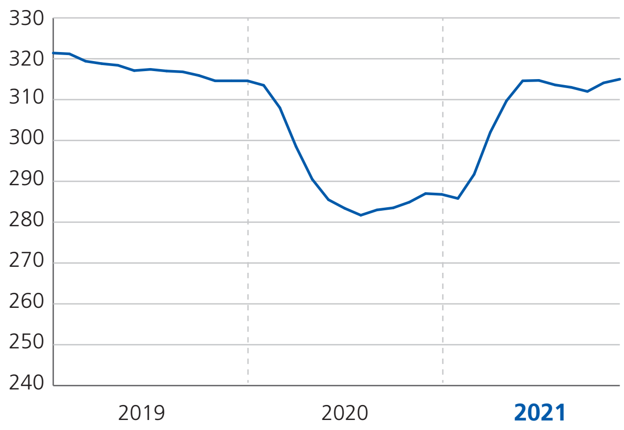
The Spanish and Italian markets slipped 2% and 3% respectively over the period. In all, the market ended the year at close to 2019 levels in most countries, except Turkey (up 19%) and Italy (down 10%).

In the **CIS**, demand surged 21% in the first half and remained on a upward trend, delivering a 10% gain in the second. By year-end, the market was up 15% on 2020 and a slight 2% ahead of 2019.

The following table shows the change in demand by major country, with growth varying in the non-euro geographies depending on export sales.

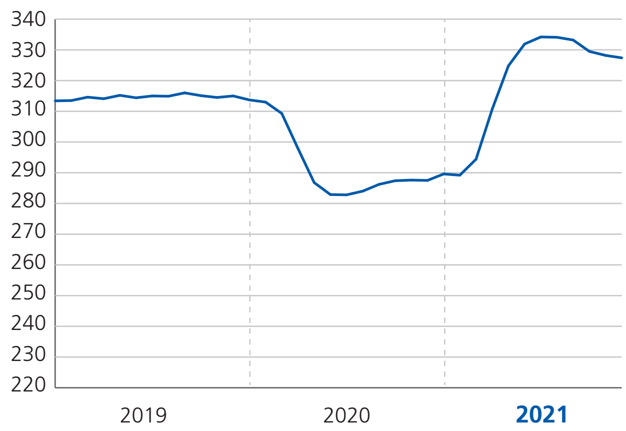
Passenger car and Light truck tires – Replacement	2021 vs. 2020
WESTERN AND CENTRAL EUROPE	**+10%**
France	+15%
Spain	+22%
Italy	+9%
United Kingdom	+5%
Germany	+7%
Poland	+19%
Turkey	+2%
CIS	**+15%**
Russia	+18%

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.

In **North and Central America**, demand remained very high in the first nine months, ending the period up 23% on 2020 and 7% on 2019, supported by favorable comparatives and dealer inventory rebuilding. It turned down in the final three months, losing 7% in comparison with the prior-year period, when dealer inventories rose on speculative buying ahead of possible new US duties on tires imported from South Korea, Thailand, Vietnam and Taiwan. In all, the market ended the year up 14% on 2020 and 4% ahead of 2019.

Demand in **South America** climbed 39% over the first nine months from favorable comparatives, particularly in the third quarter when it had still been heavily impacted by Covid-19 in 2020. The market then flattened out over the final three months to end the year up 27% on 2020 and a slight 2% ahead of 2019.

After rebounding 15% in the first half thanks to very favorable first-quarter comparatives, demand in **China** moved back in line with 2019 in the second six months of the year. However, it declined 7% compared with second-half 2020, which had seen a particularly robust 8% rebound as the country emerged from lockdown. In all, the market expanded by 3% over the full year, but remained a slight 2% below its 2019 level.

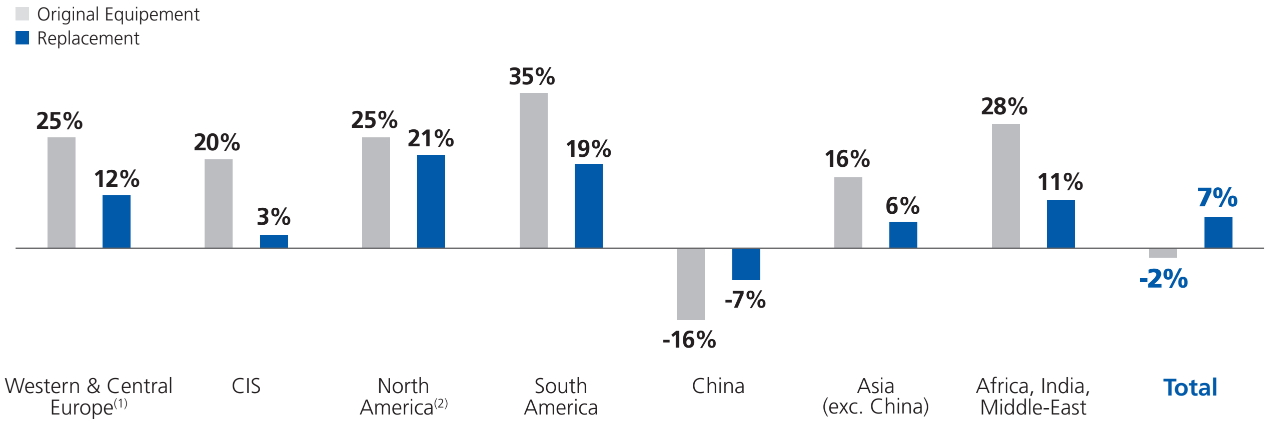
In **Asia (excluding China and India)**, demand rebounded by 13% in the first half but was hard hit by Covid-19 in the third quarter, with declines of 5% overall and of 42% in Thailand, 38% in Vietnam and 14% in Indonesia. It recovered somewhat in the final three months, gaining 2% to end the year up 5% on 2020, but still a steep 6% behind 2019.

Markets in **Africa, India and the Middle-East** rebounded sharply off of very favorable prior-year comparatives in the first half, with growth of 36% overall and of 64% in India. They rose a further 6% in the third quarter before leveling out in the fourth, leading to a 17% increase for the year, but a 3% decline compared to 2019.

3.1.4 TRUCK TIRE MARKETS IN 2021

The number of new **Truck** tires sold worldwide increased by 4% in 2021. Demand rose in every region except China, where it fell 11% from prior-year levels, which had been lifted exceptionally high by buying ahead of the implementation of the China 6 emissions standard.

THE GLOBAL TRUCK TIRE MARKET, 2021 VS. 2020



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

3.1.4.1 Original Equipment

The global Original Equipment Truck tire market, as measured by the number of new tires sold, contracted by 2% year-on-year in 2021, moving back in line with 2019 levels (up 1%). These overall figures mask a marked contrast between China and the other regions.

Truck tire markets Original Equipment *(in millions of tires)*	2021	2020	2021/2020	Second-half 2021/2020	Fourth-quarter 2021/2020	Third-quarter 2021/2020	First-half 2021/2020	Second-quarter 2021/2020	First-quarter 2021/2020
Western and Central Europe[1]	5.8	4.7	+25%	+5%	+4%	+6%	+50%	+98%	+21%
CIS	1.1	0.9	+20%	+13%	+14%	+11%	+30%	+43%	+16%
North America[2]	6.1	4.9	+25%	+7%	+6%	+9%	+47%	+119%	+10%
South America	2.2	1.6	+35%	+20%	+8%	+33%	+56%	+120%	+19%
China	28.3	33.9	-16%	-49%	-49%	-48%	+21%	-15%	+88%
Asia (excluding China)	4.0	3.4	+16%	+16%	+11%	+21%	+16%	+51%	-5%
Africa/India/Middle-East	3.0	2.3	+28%	+14%	-12%	+56%	+45%	+79%	+30%
TOTAL	**50.5**	**51.7**	**-2%**	**-28%**	**-30%**	**-26%**	**+27%**	**+8%**	**+52%**

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

In **Europe (excluding the CIS)** and the **Americas**, the robust economic recovery and driver shortages prompted trucking companies to massively upgrade their fleets. This drove strong growth in demand in these regions over the year, with gains of 25% in North America and Europe and of 35% in South America.

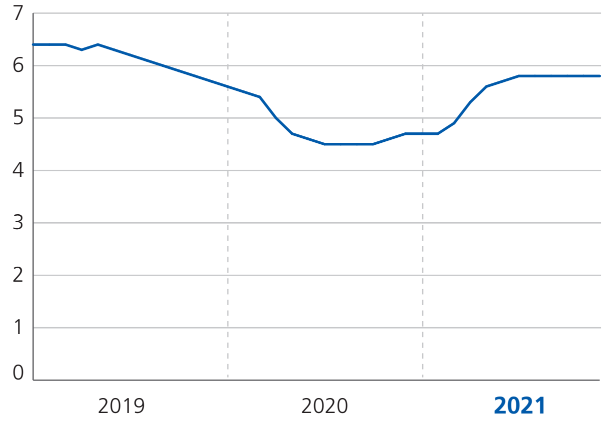
By year-end, markets had exceeded their 2019 levels by 2% in Europe, but fell a considerable 10% short in North America, where 2019 had been an exceptionally strong year.

After rebounding a vigorous 88% from favorable comparatives in the first quarter, demand in **China** was dampened over the rest of the year by the highly unfavorable comparison with the 2020 period, which saw massive buying ahead of implementation of the China 6 emissions standard.

As a result, the market ended the year down 16%, but remained 11% higher than in 2019.

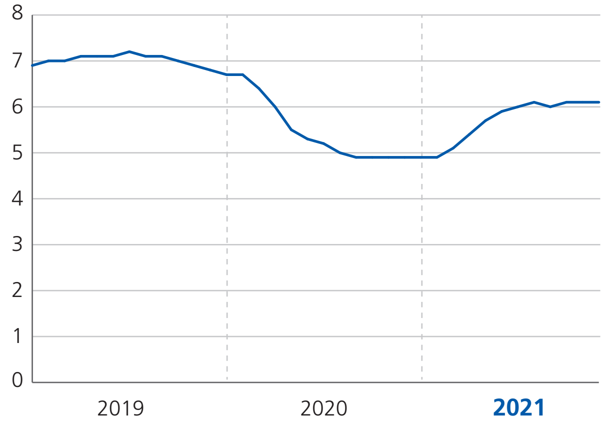
Markets in **the rest of the world** expanded during the year, with gains of 16% in Asia excluding China and of 28% in the Africa/India/Middle-East region, but still fell short of their 2019 levels, by 16% in Asia excluding China and by 34% in the Africa/India/Middle-East region.

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.

3.1.4.2 Replacement

After rebounding a firm 25% from favorable comparatives in the first half, demand for Replacement tires retreated by 6% in the second six months, feeding through to a 7% increase in the market for the year, but a 3% decline compared to 2019. These overall figures mask a marked contrast between China and the other regions.

Truck tire markets Replacement *(in millions of tires)*	**2021**	**2020**	**2021/2020**	**Second-half 2021/2020**	**Fourth-quarter 2021/2020**	**Third-quarter 2021/2020**	**First-half 2021/2020**	**Second-quarter 2021/2020**	**First-quarter 2021/2020**
Western and Central Europe[1]	17.2	15.4	+12%	0%	0%	+1%	+28%	+40%	+18%
CIS	8.6	8.3	+3%	+3%	+12%	-5%	+4%	+13%	-5%
North America[2]	31.6	26.2	+21%	+9%	+4%	+15%	+35%	+56%	+18%
South America	14.0	11.8	+19%	+7%	0%	+15%	+33%	+51%	+19%
China	43.4	46.8	-7%	-26%	-28%	-24%	+28%	+4%	+59%
Asia (excluding China)	22.8	21.6	+6%	+3%	+2%	+4%	+9%	+19%	+1%
Africa/India/Middle-East	28.5	25.6	+11%	+1%	+7%	-4%	+23%	+41%	+9%
TOTAL	**166.1**	**155.7**	**+7%**	**-6%**	**-7%**	**-5%**	**+25%**	**+28%**	**+21%**

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

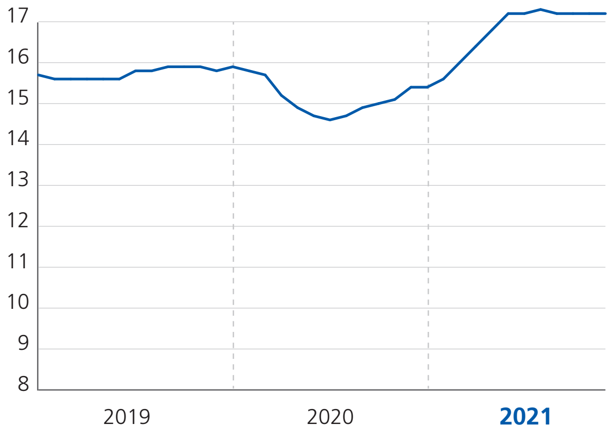
After rebounding a solid 28% in the first half, demand in **Western and Central Europe** leveled off in the second six months, with gains of 12% in Germany and of 19% in the Nordic countries offset by flat growth in France and Spain and a 7% decline in Central Europe.

Over the full year, the market rose by 12% on 2020 and by 9% compared with 2019 (including an 18% improvement in Turkey).

Demand in **North and Central America** remained very robust, rising 9% in the second half after rebounding by 35% in the first six months. Buoyed by the strong economic recovery, it ended the year up 21% on 2020 and 18% on 2019.

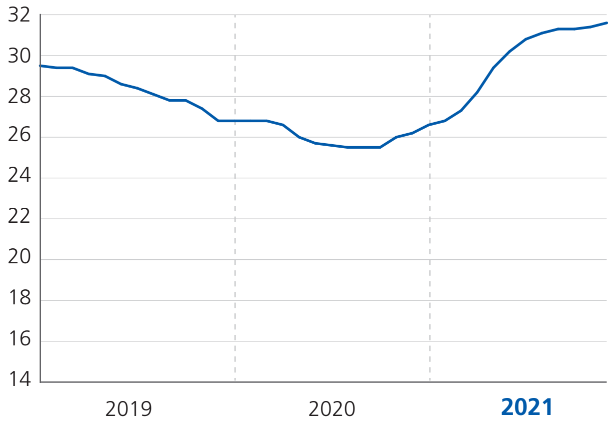
Markets in **South America** tracked North American trends, with a 33% rebound in the first half and a sustained 7% increase in the second. Supported by the strong economic recovery, demand ended the year up 19% on 2020 and 10% on 2019.

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.

Following a 28% increase in the first half, Replacement tire demand in **China** declined by 26% in the second six months, impacted by slowing economic growth and extensive truck fleet upgrades in 2020 ahead of implementation of the China 6 emissions standard.

Over the full year, the Replacement market ended down 7% on 2020 and 19% compared with 2019.

In the **Asia (excluding China)** and **Africa/India/Middle-East** regions, demand rose by 6% and 11% respectively year-on-year, but still lagged behind 2019 by 7% and 6% respectively.

3.1.5 SPECIALTY TIRE MARKETS IN 2021

Mining tires: despite the pervasive disruption in global supply chains, demand for surface mining tires rose over the year, with a brisk acceleration in the second half.

Agricultural and Construction tires: farm machinery tire markets climbed sharply year-on-year, with a very strong cyclical upturn in Original Equipment sales.

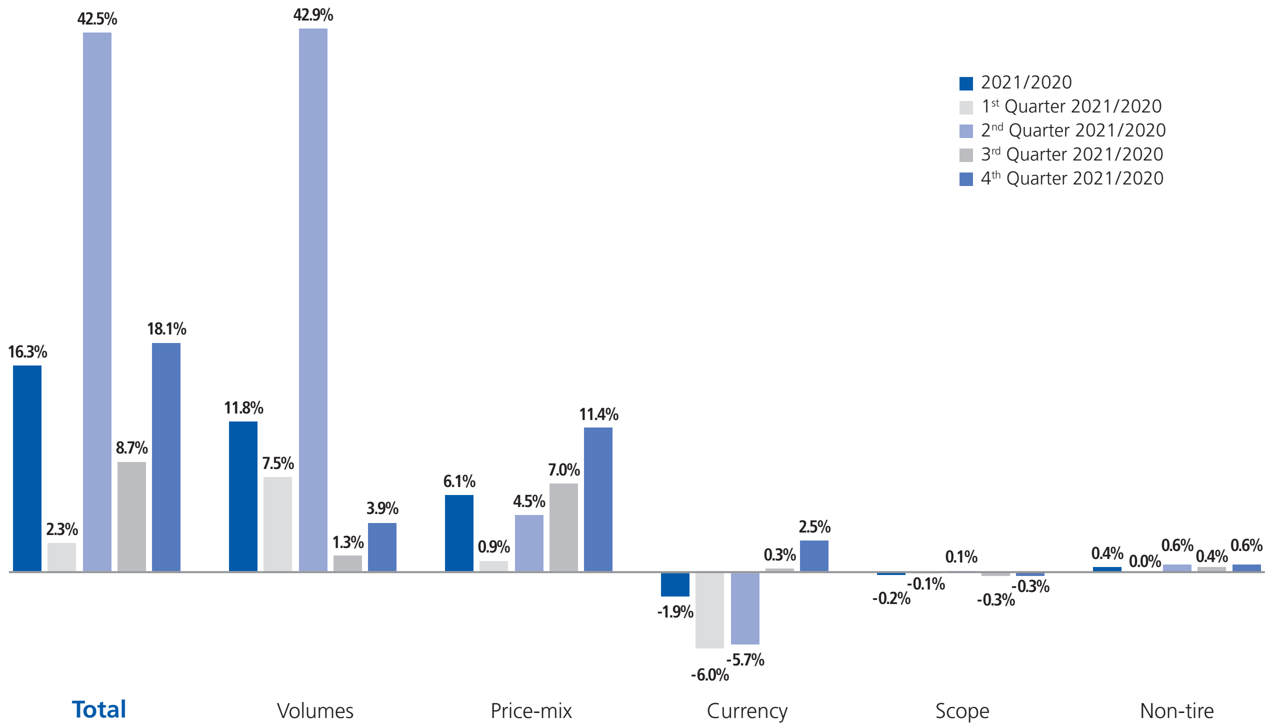
An expanding construction industry helped the Construction and Infrastructure tire markets to maintain their robust recovery, which was more pronounced in the OE segment.

Two-wheel tires: despite a mid-year period dampened by Covid-19 in Asian markets, two-wheel tire demand remained strong across every geography and segment.

Aircraft tires: in a still highly unstable environment, aircraft tire markets rebounded in line with the uptick in air traffic, Covid-19 vaccinations and border reopenings. Demand in the Military and General Aviation segments continued to hold up well over the period, but nevertheless remained significantly below its pre-crisis levels.

Conveyor belts: the industrial and mining conveyor belt markets turned in a mixed performance. Demand in Australia turned slightly upwards after suffering from the restrictions on China-bound coal exports, while the Services and Engineering segments were adversely impacted by Covid-19. In North America, the market rebounded at year-end in both the mining and the industrial segments.

3.2 SALES



Sales stood at €23,795 million for the year, up 16.3% from €20,469 million in 2020 and down a slight 1.4% on 2019. The year-on-year change reflected the combined impact of the following factors:

- the strong +11.8% rebound in tire volumes on the back of a particularly vigorous upturn in global demand in the first half, with highly favorable comparatives reflecting the drastic restrictions on freedom of movement in place during first-half 2020. Volumes remained higher year-on-year in the second half, but were dampened by less favorable comparatives and the persistently unstable business environment (health crisis, major disruptions in global supply chains, labor shortages, slowdown in automaker production);
- the 6.1% positive price-mix effect. The €921 million gain from prices reflected the disciplined, assertive pricing policy implemented to offset (i) rising raw materials, transportation, energy and other costs of sales and (ii) the decline in certain currencies against the euro. The €330 million positive mix effect reflected the sustained success of the MICHELIN brand's premium strategy, particularly in the 18-inch and larger segment, and the greater percentage of Replacement business in the sales mix as Original Equipment sales felt the impact of semiconductor shortages in the automotive industry;
- the 1.9% negative currency effect, led by the decline in the US dollar against the euro in the second half;
- a 0.2% unfavorable decline from changes in the scope of consolidation, mainly due to the removal of Solesis following the sale of an equity stake to Altaris in May 2021.

Sales from non-tire activities, which were more resilient during the Covid-19 crisis and less exposed to supply chain disruptions, climbed 7.7% during the year.

(in € millions and %)	2021	Second-half 2021	Fourth-quarter 2021	Third-quarter 2021	First-half 2021	Second-quarter 2021	First-quarter 2021
SALES	**23,795**	**12,603**	**6,591**	**6,012**	**11,192**	**5,744**	**5,448**
Change, year-on-year	**+3,326**	**+1,491**	**+1,010**	**+481**	**+1,835**	**+1,714**	**+121**
Volumes	+2,421	+291	+218	+72	+2,130	+1,728	+402
Price-mix	+1,251	+1,022	+635	+387	+229	+184	+45
Currency effect	-393	+155	+139	+17	-548	-227	-321
Scope of consolidation	-36	-35	-18	-17	-1	+4	-5
Non-tire sales	+83	+58	+36	+22	+25	+25	0
Change, year-on-year	**+16.3%**	**+13.4%**	**+18.1%**	**+8.7%**	**+19.6%**	**+42.5%**	**+2.3%**
Volumes	+11.8%	+2.6%	+3.9%	+1.3%	+22.8%	+42.9%	+7.5%
Price-mix	+6.1%	+9.2%	+11.4%	+7.0%	+2.4%	+4.5%	+0.9%
Currency effect	-1.9%	+1.4%	+2.5%	+0.3%	-5.9%	-5.7%	-6.0%
Scope of consolidation	-0.2%	-0.3%	-0.3%	-0.3%	0.0%	+0.1%	-0.1%
Non-tire sales	+0.4%	+0.5%	+0.6%	+0.4%	+0.3%	+0.6%	0.0%

3.2.1 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, Off-the-road, Two-wheel and Aircraft tire activities, as well as the High-Technology Materials activities (conveyor belts...). 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)	2021	Second-half 2021	Fourth-quarter 2021	Third-quarter 2021	First-half 2021	Second-quarter 2021	First-quarter 2021
GROUP	**23,795**	**12,603**	**6,591**	**6,012**	**11,192**	**5,744**	**5,448**
Automotive and related distribution	11,998	6,436	3,395	3,041	5,562	2,868	2,694
Road transportation and related distribution	6,233	3,336	1,730	1,606	2,897	1,509	1,388
Specialty businesses and related distribution	5,564	2,831	1,466	1,365	2,733	1,367	1,366
% change, year-on-year	**+16.3%**	**+13.4%**	**+18.1%**	**+8.7%**	**+19.6%**	**+42.5%**	**+2.3%**
Automotive and related distribution	+18.8%	+12.7%	+18.4%	+7.0%	+26.6%	+59.6%	+3.7%
Road transportation and related distribution	+16.0%	+12.6%	+15.1%	+10.1%	+20.2%	+43.6%	+2.1%
Specialty businesses and related distribution	+11.4%	+16.0%	+21.1%	+11.0%	+7.1%	+15.7%	-0.3%

3.2.1.1 Automotive and related distribution – Analysis of sales

Volumes in the Automotive and related distribution reporting segment increased by 12.3% over the year. After surging 28.0% in the first half, lifted by strongly rebounding demand and very favorable comparatives, they leveled off in the second six months, with just a 0.2% gain due to less favorable comparatives and the steep slowdown in the Original Equipment business caused by semiconductor shortages.

In this mixed environment, the Group focused on the highest value market segments, by continuing to broaden its product portfolio and strengthen its positions 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 rising costs.

In all, segment sales ended the year a slight 1.2% ahead of 2019, in markets down 4% overall over the same period.

In the **Original Equipment** segment, the Group maintained its positions in a market that was severely disrupted by the decline in automaker demand as semi-conductor shortages curtailed output, particularly in the second half. On the other hand, the Original Equipment business benefited from a favorable size mix, as automakers focused on their premium models. Sales also continued to be buoyed by the growth in the electric vehicle segment, which was especially strong in 2021, spurred by the auto industry support plans deployed in a large number of countries.

In all, Original Equipment sales edged up slightly year-on-year in 2021 but remained significantly below their 2019 levels.

On the **Replacement** side, the Group widened its market share in the buoyant 18-inch and larger tire segment and was able to raise prices assertively throughout the year in every geography. The fall launch of the MICHELIN Cross Climate 2, available in 40% more size configurations than its predecessor, confirmed 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 the purchase of all outstanding shares of Allopneus in France, and by continuing to expand its franchise network.

In **Europe**, new share was gained in markets shaped by fast-growing sell-out demand and still lower-than-normal local dealer inventories. Consolidated sales were lifted by a positive geographic mix stemming from the strong exposure to Southern European countries, which had been more impacted by the slowdown in demand in 2020. Across the region, the Group continued to strengthen its positions in the 18-inch and larger segment and in winter tires (particularly in Northern Europe), while applying its assertive pricing policy. In addition, the Group continued to expand its solid positions in the all-season segment with its MICHELIN Cross Climate family, whose sales were lifted by national regulations requiring motorists to use winter tires in mountainous regions. The KLEBER branded Tier 2 tires maintained their robust growth momentum and continued to enhance the size mix.

In **North and Central America**, with demand very high and production capacities restrained, in particular by labor shortages, initiatives to prioritize the most profitable segments and manage prices helped to drive sustained growth in sales. Restructuring the TBC dealership network acquired in 2018 has provided the Group with particularly optimized, efficient market access and geographic coverage.

In **South America**, whose highly import-driven markets returned to 2019 levels during the year, the Group maintained its market share and continued to enhance its mix. However, sales were negatively impacted by import quotas in Argentina, which prevented the Group from meeting strong local demand.

In **Asia (excluding India)**, the Group strengthened its positions as travel rebounded, despite lingering local disruptions from the strict lockdowns ordered in response to Covid variants.

In a Southeast Asian market up on 2020 but still lagging behind 2019, consolidated sales were supported by price increases and Group market share gains in the 18-inch and larger segments.

In China, where the resurgence of the pandemic in second-half 2021 caused the market to slow versus 2020 (when it did not decline as much), the Group increased its share in the premium tire market and maintained its share in the other segments, in a slightly more competitive pricing environment.

The Group further strengthened its positions in 18-inch and larger tires across the **Africa/India/Middle-East** region, despite the difficulties caused by import restrictions in India, and captured the particularly strong growth in the African and Middle-Eastern countries.

Sales in the **Michelin Experiences** business, which primarily operates in the fine dining, hospitality and travel segments, were still adversely impacted by restrictions on international travel and capacity limits on social events. As sales rose in 2021 compared with the previous year, the Group stepped up deployment of its projects designed to digitalize the services portfolio. In addition, the licensed products distribution business continued to expand at a steady pace. 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 18.8% to €11,998 million, from €10,103 million in 2020. As volumes grew by a robust 12.3%, the price-mix effect was very positive over the year, led by the price increases diligently applied in every geography, market share gains in the 18-inch and larger segment and the slowdown in Original Equipment Automotive business in the second half.

3.2.1.2 Road transportation and related distribution – Analysis of sales

Volumes in the Road transportation and related distribution reporting segment rose by 12.9% in 2021, impelled by the sharp upturn in economic activity and surging freight demand. They climbed 23.9% in the first half, from very favorable comparatives, then slowed to a 4% gain in the second six months, reflecting a less favorable basis of comparison. In this highly buoyant environment, the Group significantly raised its prices to offset rising raw materials, transportation, energy 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 trended upwards over the year and the Group consolidated its positions. Environmental standards aimed at reducing carbon emissions and 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, demand for new tires was very robust throughout the year, driven by the global economic recovery and huge overland freight needs. In this very promising environment, the Group focused on its value-added offerings, led by the MICHELIN brand and retreading solutions. The Services & Solutions business, which had been highly resilient in 2020, maintained a steady pace of expansion during the year, particularly geographically. While the passenger transportation market still suffered from travel restrictions, 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, launched in 2020, was a best seller.

In the very buoyant **European** market, where dealer inventories have returned to normal, the Group strengthened its positions in MICHELIN brand segments and retreading in its leading host countries, diligently applying price increases in response to sharply rising costs, particularly in Central Europe. Unveiled in November 2021, the Michelin Connected Fleet umbrella brand now consolidates all the fleet Services & Solutions under a single identity, enhancing the synergies among Sascar, Masternaut and Michelin's long-standing tire-related products and services. The new solution will be gradually deployed around the world.

In **North America**, where the market was very robust and overland freight demand rose by 50% year-on-year, the Group's positions were hurt 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.

Sales of fleet services continued to expand.

The **South American** market significantly exceeded its 2019 levels during the year, with a slight loss of value in the mix. In this environment, the Group strengthened its positions by focusing on MICHELIN brand sales.

Consolidated sales, however, were dampened by import restrictions in Argentina.

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 India)**, 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.

The Group consolidated its positions in the **Africa/India/Middle-East** region. The fast-growing Indian market is continuing to shift to radial tires, where the Group can capitalize on its technological advantage. The Group increased its share in the African and Middle-Eastern markets, where the rebound in demand has been more sluggish due to the slowdown in capital spending in the oil and gas industry.

In all, sales in the Road transportation and related distribution reporting segment amounted to €6,233 million, a 16.0% year-on-year increase that was led by sustained volume growth, an assertive pricing policy and a more prominent positioning in value-creating segments.

3.2.1.3 Specialty businesses and related distribution – Analysis of sales

Surface mining tires: in an upwardly trending ore market, impelled by growing demand for metals, in particular to support the energy transition, Group sales were hard hit by labor shortages, especially in the United States, and by disruptions in downstream logistics that significantly slowed finished product shipments particularly to Australia, South America and other geographies. Application of the raw materials indexation clauses included in a large percentage of mining customer contracts fed through to price increases in the second semester, but with a time lag that did not allow to offset all inflation factors over the year.

Agricultural and Construction tires: the Group is capturing the strong market momentum in both segments, particularly in the Original Equipment market.

It is gaining market share in the Construction tire segment, which closely tracks the infrastructure projects that have seen particularly brisk growth after a slowdown in 2020. The residential construction segment is also experiencing very strong growth, particularly in the United States and Europe.

Group sales rose sharply in the Agricultural tire market, which is very buoyant, especially in the Original Equipment segment. However, restricted production capacity and shipping difficulties caused by the lack of maritime cargo space prevented the Group from meeting all the demand.

Two-wheel tires: after ending 2020 only slightly lower than in 2019, two-wheel tire sales were very strong throughout 2021. Despite closing its Brazilian plant in Manaus for several days early in the year due to Covid, the Group was able to meet demand and slightly increase its market share. The price increases offset both higher raw materials costs and the impact of currency movements.

Aircraft tires: despite a clear rebound from 2020, aircraft tire sales were still very hard hit in 2021 by the persistent health crisis and locally imposed travel restrictions.

Demand in the Military and General Aviation segments continued to hold up well over the year.

Fenner's **conveyor belt** business was adversely affected by the decline in mining output in Australia, stemming primarily from Chinese restrictions on Australian coal imports.

In all, sales by the Specialty businesses reporting segment increased by 11.4% year-on-year to €5,564 million, but fell short of 2019 levels, mainly due to supply chain constrictions, labor shortages and the Commercial Aviation business, which may take several years to return to pre-crisis levels.

3.2.2 CHANGES IN EXCHANGE RATES FOR THE MAIN OPERATING CURRENCIES

At current exchange rates, consolidated sales rose by 16.3% in 2021.

The increase includes a 1.9% (€391 million) unfavorable currency effect, stemming from a decline in the US dollar against the euro and weakness in the Brazilian real and Turkish lira.

Average exchange rate	2021	2020	Change
Euro/USD	1.184	1.141	+3.7%
Euro/CNY	7.636	7.873	-3.0%
Euro/AUD	1.575	1.653	-4.7%
Euro/GBP	0.860	0.889	-3.2%
Euro/BRL	6.370	5.815	+9.5%
Euro/CAD	1.483	1.529	-3.0%
Euro/RUB	87.193	81.985	+6.4%
Euro/JPY	129.829	121.814	+6.6%
Euro/MXN	23.993	24.373	-1.6%
Euro/THB	37.791	35.697	+5.9%
Euro/CLP	894.671	902.095	-0.8%
Euro/TRY	10.187	7.930	+28.5%
Euro/SEK	10.145	10.480	-3.2%
Euro/TWD	33.069	33.607	-1.6%
Euro/ZAR	17.462	18.661	-6.4%
Euro/ARS	112.099	79.562	+40.9%
Euro/COP	4,416.600	4,195.400	+5.3%

Sales break down as follows by currency:

Currency	%	Currency	%
USD	36%	TRY	0.9%
EUR	32%	THB	0.9%
CNY	6%	CLP	0.8%
AUD	3%	SEK	0.7%
GBP	3%	TWD	0.6%
BRL	3%	ZAR	0.5%
CAD	3%	ARS	0.3%
RUB	2%	COP	0.2%
JPY	1%	Other	4.5%
MXN	1%		
TOTAL			**100%**

3.2.3 SALES BY REGION

(in € millions)	2021	2021/2020	Second-half 2021	First-half 2021
GROUP	**23,795**	**+16.3%**	**12,603**	**11,192**
Europe	9,014	+18.0%	4,766	4,248
of which France	*2,066*	*+17.2%*	*1,086*	*980*
North America (incl. Mexico)	8,389	+18.1%	4,576	3,813
Other regions	6,392	+11.6%	3,261	3,131

(in € millions)	2021	% of total	2020	% of total
GROUP	**23,795**		**20,469**	
Europe	9,014	37.9%	7,640	37.3%
of which France	*2,066*	*8.7%*	*1,762*	*8.6%*
North America (incl. Mexico)	8,389	35.3%	7,102	34.7%
Other regions	6,392	26.9%	5,727	28.0%

Consolidated sales rose year-on-year in every region, with more pronounced gains in Europe and North America, which had been hit the hardest by the fall-off in demand in 2020.

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

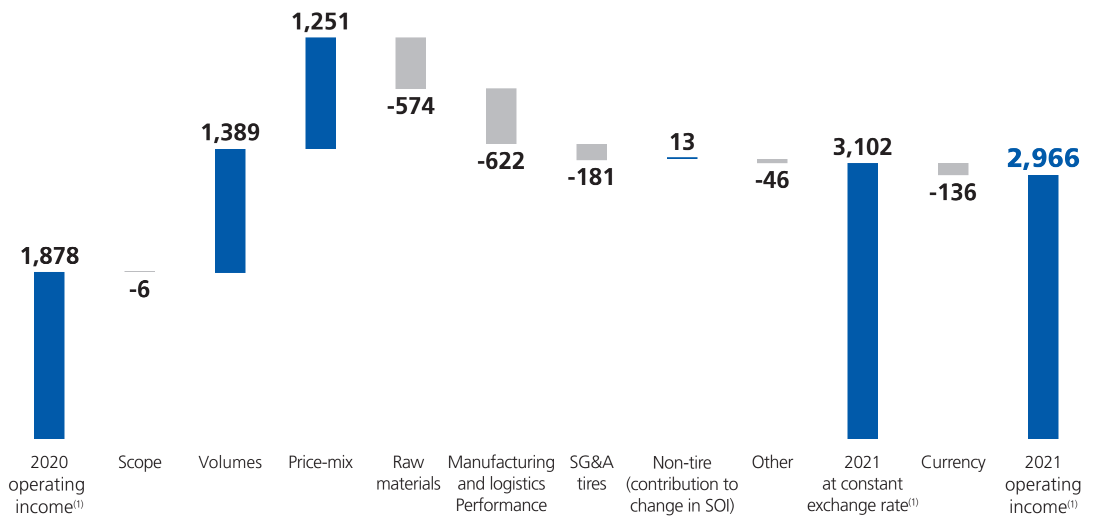
3.3 CONSOLIDATED INCOME STATEMENT REVIEW

(in € millions, except per share data)	2021	2020[(1)]	2021/2020	2021 (as a % of sales)	2020 (as a % of sales)
Sales	23,795	20,469	+16.3%		
Cost of sales	(16,810)	(14,754)	+13.9%	70.6%	72.1%
Gross income	**6,985**	**5,715**	**+22.2%**	**29.4%**	**27.9%**
Sales and marketing expenses[(1)]	(1,133)	(1,070)	+5.9%	4.8%	5.2%
Research and development expenses	(682)	(646)	+5.6%	2.9%	3.2%
General and administrative expenses[(1)]	(2,137)	(1,994)	+7.2%	9.0%	9.7%
Segment other income and expenses	(67)	(127)	-47.2%	0.3%	0.6%
Segment operating income	**2,966**	**1,878**	**+57.9%**	**12.5%**	**9.2%**
Other operating income and expenses	(189)	(475)	-60.2%	0.8%	2.3%
Operating income	**2,777**	**1,403**	**+97.9%**	**11.7%**	**6.9%**
Cost of net debt	(192)	(242)	-20.7%	0.8%	1.2%
Other financial income and expenses	(4)	(14)	-71.4%	0.0%	0.1%
Net interest on employee benefit obligations	(41)	(56)	-26.8%	0.2%	0.3%
Share of profit/(loss) from equity-accounted companies	(69)	(112)	-38.4%	0.3%	0.5%
Income before taxes	**2,471**	**979**	**+152.4%**	**10.4%**	**4.8%**
Income tax	(626)	(354)	+76.8%	2.6%	1.7%
Net income	**1,845**	**625**	**+195.2%**	**7.8%**	**3.1%**
▸ Attributable to the shareholders of the Company	1,844	632	+191.8%	7.7%	3.1%
▸ Attributable to the non-controlling interests	1	(7)	-114.3%		
EARNINGS PER SHARE *(in €)*					
▸ Basic	10.31	3.52	+192.7%		
▸ Diluted	10.24	3.51	+192.1%		

(1) The first-half 2020 figures have been restated for comparison purposes (see note 2.8 to the consolidated financial statements).

3.3.1 ANALYSIS OF SEGMENT OPERATING INCOME

(in € millions)



(1) Segment operating income.

Segment operating income amounted to €2,966 million or 12.5% of sales for the year ended December 31, 2021, compared with €1,878 million and 9.2% the year before, primarily as a result of the strong growth in volumes as the global economy recovered.

The €1,088 million year-on-year increase reflected the combined impact of the following factors:

- a slight €6 million decrease from changes in the scope of consolidation, primarily relating to the removal of Solesis and Michelin Experiences' printing business;
- a €1,389 million increase from the strong growth in volumes sold and the resulting improvement in fixed cost absorption;
- a robust €1,251 million increase from the favorable price-mix effect, reflecting highly assertive pricing management at a time of steeply rising raw material prices, freight charges and energy costs as from the second half. 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, the relative slowdown in automotive OE sales over the second half and the priority focus on the MICHELIN brand in Truck tires;
- a €574 million decrease from the sharp rise in both the cost of raw materials used in production over the year and their cost of transportation, due to the shortage of maritime shipping capacity, particularly in the first half;
- a €622 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 and spare part costs;
- a €181 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 (particularly on travel expenses). Note that SG&A expenses still ended the year lower than in 2019;
- a €46 million unfavorable impact made of others elements, including a €70 million decline in Covid-19 costs;
- a €136 million decrease from the unfavorable currency effect, stemming primarily from the decline in the US dollar in the first half and in the Turkish lira, Russian ruble, Argentine peso and other emerging currencies over the full year.

In all, segment operating income at constant exchange rates totaled €3,102 million in 2021, in line with the guidance issued on October 25, 2021 targeting more than €2,800 million in segment operating income at constant exchange rates for the year.

Other operating income and expenses unallocated to the operating segments improved by €286 million year-on-year, to a net expense of €189 million from a net expense of €475 million in 2020. Other operating income and expenses are described in more detail in section 3.3.3.9 below and in note 9 to the consolidated financial statements.

3.3.2 SEGMENT OPERATING INCOME

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

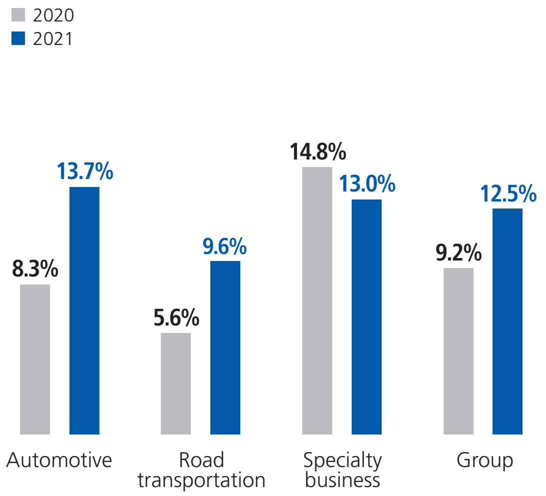
- automotive and related distribution;
- road transportation and related distribution;
- specialty businesses and related distribution.

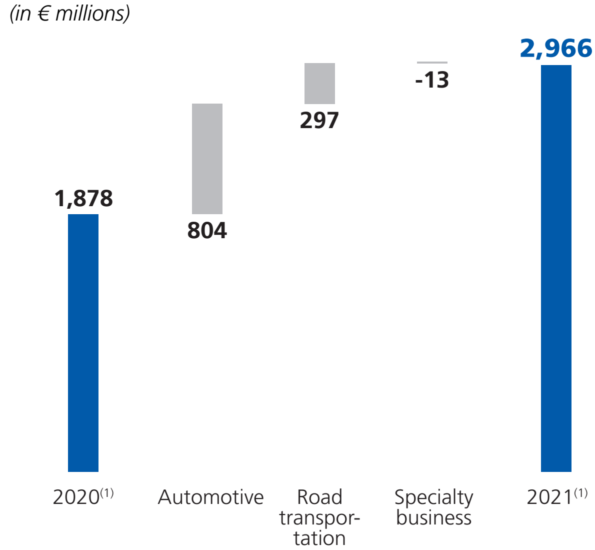
The Specialty businesses include the Mining, Off-the-road, Two-wheel and Aircraft tire activities, as well as the Conveyor Belt and High-Technology Materials activities. The Services & Solutions businesses are included for the most part in the "Road transportation and related distribution" segment.

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)	2021	2020	Second-half 2021	First-half 2021
AUTOMOTIVE AND RELATED DISTRIBUTION				
Sales	11,998	10,103	6,436	5,562
Segment operating income	1,643	839	913	730
Segment operating margin	**13.7%**	**8.3%**	**14.2%**	**13.1%**
ROAD TRANSPORTATION AND RELATED DISTRIBUTION				
Sales	6,233	5,373	3,336	2,897
Segment operating income	599	302	313	286
Segment operating margin	**9.6%**	**5.6%**	**9.4%**	**9.9%**
SPECIALTY BUSINESSES & RELATED DISTRIBUTION				
Sales	5,564	4,993	2,831	2,733
Segment operating income	724	737	319	405
Segment operating margin	**13.0%**	**14.8%**	**11.3%**	**14.8%**
GROUP				
Sales	23,795	20,469	12,603	11,192
Segment operating income	2,966	1,878	1,545	1,421
Segment operating margin	**12.5%**	**9.2%**	**12.3%**	**12.7%**

3.3.2.1 Segment operating margin





(1) Segment operating income.

3.3.2.2 Automotive and related distribution – Analysis of segment operating income

Automotive and related distribution *(in € millions)*	**2021**	**2020**	**2021/2020**	**2021** *(% of consolidated total)*	**2020** *(% of consolidated total)*
Sales	11,998	10,103	+18.8%	50%	49%
Change in volumes	12.3%				
Segment operating income	1,643	839	+95.8%	55%	45%
Segment operating margin	13.7%	8.3%	+5.4 pts		

Automotive segment operating income came to €1,643 million or 13.7% of sales, versus €839 million and 8.3% in 2020. The significant improvement was led by the robust 12.3% growth in volumes in a market up 9% and by a highly assertive pricing policy applied in every geography, which helped to offset the increase in raw material, supply chain and energy costs. Segment operating income was also lifted by market share gains, notably in the higher margin 18-inch and larger tire segments, as well as by the favorable mix stemming from the slowdown in the Automotive Original Equipment business, which was adversely impacted by the semiconductor shortage.

Exchange rate movements had a negative impact on the segment's operating income.

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

Road transportation and related distribution *(in € millions)*	**2021**	**2020**	**2021/2020**	**2021** *(% of consolidated total)*	**2020** *(% of consolidated total)*
Sales	6,233	5,373	+16.0%	26%	26%
Change in volumes	12.9%				
Segment operating income	599	302	+98.3%	20%	16%
Segment operating margin	9.6%	5.6%	+4.0 pts		

Road transportation segment operating income amounted to €599 million or 9.6% of sales, compared with €302 million and 5.6% the year before.

The upturn in global demand drove a robust 12.9% rebound in sales volumes, while the selective marketing strategy focused on the MICHELIN brand and value-creating markets, as well as responsive price management, helped to offset the increase in raw materials, supply chain and energy costs.

However, the segment's performance was dampened by production constraints that prevented it from meeting all the demand, particularly in North America, which lowered the absorption of fixed costs for the year.

The Services & Solutions business stepped up both the pace of growth and its geographic expansion, led by fleet management solutions.

Exchange rate movements had a negative impact on the segment's operating income.

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

Specialty businesses and related distribution *(in € millions)*	2021	2020	2021/2020	2021 *(% of consolidated total)*	2020 *(% of consolidated total)*
Sales	5,564	4,993	+11.4%	23%	24%
Change in volumes	9.8%				
Segment operating income	724	737	-1.8%	24%	39%
Segment operating margin	13.0%	14.8%	-1.7 pt		

Segment operating income from the Specialty businesses amounted to €724 million or 13.0% of sales, versus €737 million and 14.8% the year before. With less favorable prior-year comparatives than in the other two segments, performance was mixed for the year, despite the 9.8% overall increase in volumes.

Surface mining tires: Group sales were hurt by production constraints and the shortage of maritime shipping capacity, which prevented the plants from manufacturing and shipping all the tires demanded by the market, thereby reducing fixed cost absorption. Sales were lifted by the application, over the second half, of the raw materials indexation clauses included in a large percentage of contracts with mining operators; however given the time lag between the increase of costs (raw material and logistics) and the application of the clauses, the increase of selling prices did not enable to offset all inflators over the year, in particular logistic costs that are adjusted on a yearly basis.

Agricultural and Construction tires: Sales rose in fast-growing markets, particularly in the Original Equipment segment. Sales were negatively impacted, however, by tight plant capacity and logistics issues in shipping finished products, particularly from Sri Lanka.

Two-wheel tires: Segment operating income rose sharply in a very buoyant environment, supported in particular by a responsive, dynamic pricing policy.

Aircraft tires: Despite a shaky recovery, business remains severely impacted by the health crisis and the collapse in commercial aviation demand, although it remains buoyed by the greater resilience of the Military and General Aviation segments.

Fenner's conveyor belt business was adversely affected by (i) difficulties in the Australian mining business, caused in particular by Chinese restrictions on coal imports, and (ii) the slowdown in the service operations due to limitations on domestic freedom of movement in Australia.

Exchange rate movements had a negative impact on the segment's operating income.

3.3.3 OTHER INCOME STATEMENT ITEMS

3.3.3.1 Raw materials

The cost of **raw materials** reported in cost of sales has been estimated at €5.0 billion in 2021 versus €3.8 billion in 2020.

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.

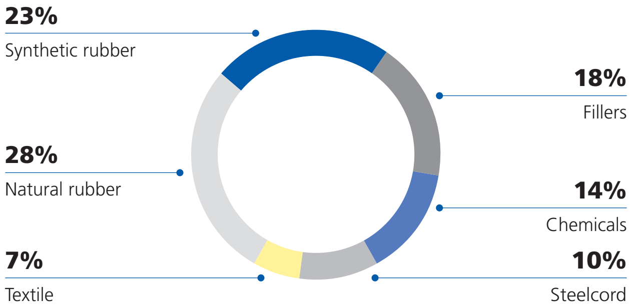
In 2021, the raw materials costs and the related transportation costs recognized in cost of sales included a €574 million unfavorable price impact, including the residual currency effect.

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

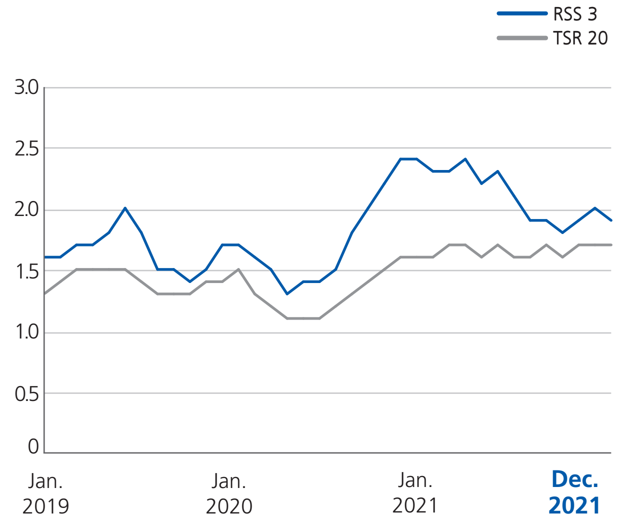
On the basis of estimated 2021 production volumes, the sensitivity of cash purchasing outlays to fluctuations in natural rubber and oil prices is as follows:

- 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.

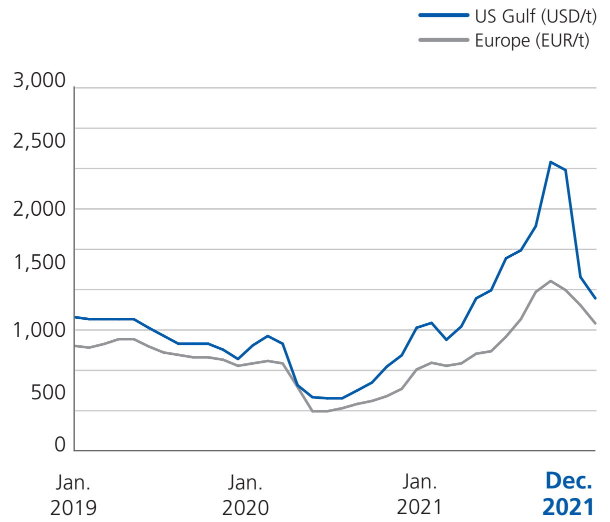
RAW MATERIALS RECOGNIZED IN 2021 COST OF SALES (€5.0 BILLION)



NATURAL RUBBER PRICES (SICOM)
(USD/kg)



BUTADIENE PRICES



3.3.3.2 Employee benefit costs and number of employees

Employee benefit costs came to €6,445 million or 27.1% of sales, up €449 million year-on-year. This change includes the impact of the upturn in business and the increase of compensation, particularly variable compensation, with respect to 2021. The decline in benefit costs as a percentage of sales was attributable to the more than 12% increase in sales over the year.

Headcount in high-cost regions, particularly in corporate functions, continued to decline in 2021 as operating procedures were simplified across the Group.

In 2021, an expense of €6,430 million was recognized in segment operating income, and an expense of €15 million was recognized in other operating income and expenses.

(in € millions and number of people)	**2021**	**2020**	**Change**
Total employee benefit costs	6,445	5,996	+7.5%
As a % of sales	27.1%	29.3%	-2.2 pts
Employees on payroll at December 31	124,760	123,600	+0.9%
Number of full-time equivalent employees at December 31	118,400	117,500	+0.8%
Average number of full-time equivalent employees	117,600	118,800	-1.0%

3.3.3.3 Depreciation and amortization

(in € millions)	**2021**	**2020**	**Change**
Total depreciation and amortization	1,812	1,840	-1.5%
As a % of sales	7.6%	9.0%	

Depreciation and amortization charges declined by €28 million to €1,812 million for the year, reflecting the slowdown in capital expenditure in 2020 in response to the Covid-19 crisis and the impairment losses recognized on the Chennai plant in 2020, which lowered depreciation for the year.

In addition, not all of the capital projects scheduled for 2021 could be deployed due to the shortages of semiconductors and materials and the pervasive disruption in global supply chains.

Of the total, €1,734 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).

3.3.3.4 Transportation costs

(in € millions)	2021	2020	Change
Transportation costs	1,685	1,095	+53.9%
As a % of sales	7.1%	5.3%	

Transportation costs came to €1,685 million or 7.1% of sales in 2021, versus 5.3% in 2020. This exceptional spike resulted from the increase in volumes shipped, but also from the dramatic increase in transportation costs across the logistics chain due to the lack of containers and containerships on many maritime shipping routes. In response to the shortage of shipping capacity and other disruptions in the supply chain, the Group occasionally had to resort to more costly workarounds on an as-needed basis.

3.3.3.5 Sales and marketing expenses

Sales and marketing expenses represented 4.8% of sales in 2021, versus 5.2% in 2020. In value and on a like-for-like basis, they rose by €63 million on 2020 due to the upturn in business.

The year-on-year decline as a percentage of sales reflected the growth in sales led by higher volumes and price increases.

3.3.3.6 Research and development expenses

(in € millions)	2021	2020	Change
Research and development expenses	682	646	+5.6%
As a % of sales	2.9%	3.2%	

Research and development expenses rose by €36 million year-on-year to €682 million. This was back in line with 2019 outlays, in a demonstration of the Group's commitment to maintaining its technological leadership in delivering performance and sustainability in its products and services.

As a percentage of sales, outlays declined to 2.9% from 3.2% in 2020, reflecting the growth in sales led by higher volumes and price increases.

3.3.3.7 General and administrative expenses

General and administrative expenses amounted to €2,137 million, a €143 million year-on-year increase that was primarily driven from the sharp upturn in business in 2021.

They represented 9.0% of sales for the year, down 0.7 point compared with 2020.

3.3.3.8 Segment other income and expenses

Segment other operating income and expenses represented a net expense of €67 million in 2021, a €60 million year-on-year decline that was primarily attributable to the year-on-year reduction in Covid-19-related expenditure. These outlays, which covered the cost of purchasing and producing masks and hand sanitizer, as well as cleaning and disinfection costs, totaled €26 million in 2021, versus €96 million in 2020.

3.3.3.9 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 €189 million in 2021, versus a net expense of €475 million in 2020.

- the recognition in 2020 of a €164 million impairment loss on the Chennai plant in India, which produces truck tires for the domestic market;
- the favorable impact of the sale of 51% of the net assets of Solesis to the Altaris investment fund, recognized in first-half 2021 in an amount of €114 million.

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

COST OF NET DEBT

(in € millions)	2021	2020	Change
Cost of net debt	192	242	-50

At €192 million, the **cost of net debt** was down €50 million compared with 2020, primarily as a result of the following factors:

- a €31 million decrease in net interest expense to €206 million, reflecting the net impact of:
  - a €3 million decrease due to the €104 million reduction in average gross debt during the year,
  - a €28 million decrease from the decline in the average gross interest rate on borrowings to 2.6% in 2021 from 2.9% in 2020,
- a €39 million decrease in losses on exchange rate derivatives, due to the combined impact of the decline in rates in 2020 and their rise in 2021, along with the increase in the euro against the US dollar;
- an €11 million decrease in interest income from cash and equivalents;
- an aggregate €9 million net increase from movements in other factors.

3.3.3.10 Other financial income and expenses

(in € millions)	2021	2020	Change
Other financial income and expenses	4	14	-10

Other financial income and expenses represented a net expense of €4 million in 2021, a €10 million year-on-year decline stemming mainly from currency movements and net products of financial assets[(1)].

3.3.3.11 Income tax

(in € millions)	2021	2020	Change
Income/(loss) before taxes	2,471	979	+1,492
Income tax	**(626)**	**(354)**	**+272**
Current tax	(614)	(314)	+300
Withholding tax	(15)	(37)	-22
Deferred tax	3	(3)	-6

Income tax amounted to €626 million in 2021, a €272 million year-on-year increase that was mostly attributable to the steep growth in income before taxes. The €614 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 2021 was 25.3%, versus 36.2% the year before.

This 25.3% effective tax rate recognized in 2021 is in line with the normal level of 2019.

(1) Note 10 to the consolidated financial statements.

3.3.3.12 Consolidated net income and earnings per share

(in € millions)	2021	2020	Change
Net income	1,845	625	+1,220
As a % of sales	7.8%	3.1%	+ 4.7 pts
▶ Attributable to the shareholders of the Company	1,844	632	+1,212
▶ Attributable to the non-controlling interests	1	(7)	
EARNINGS PER SHARE (IN €)			
▶ Basic	10.31	3.52	+6.79
▶ Diluted	10.24	3.51	+6.73

Net income came to €1,845 million for the year, or 7.8% of sales, compared with €625 million in 2020 or 3.1% of sales.

The €1,220 million increase reflected the following factors:

- favorable factors:
  - the €1,088 million increase in segment operating income,
  - the €286 million decrease in net other operating expense,
  - the €75 million decline in net financial expense, led by the €50 million reduction in the cost of net debt,
  - the €43 million increase in the Group's share of profit from equity-accounted companies, reflecting in particular the contribution from the TBC dealership network in the United States.
- unfavorable factors:
  - the €272 million increase in income tax expense.

3.4 CONSOLIDATED BALANCE SHEET REVIEW

To improve the readability of the consolidated financial statements, right-of-use assets and lease liabilities are presented separately in the consolidated statement of financial position.

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

ASSETS

(in € millions)	December 31, 2021	December 31, 2020	Total change	Translation adjustments	Movement
Goodwill	2,286	2,136	+150	+122	+28
Intangible assets	1,811	1,980	-169	+101	-270
Property, plant and equipment	11,231	10,821	+410	+387	+23
Right-of-use assets	1,034	1,083	-49	+44	-93
Non-current financial assets and other non-current assets	1,404	865	+539	+49	+490
Investments in equity-accounted companies	1,103	941	+162	+58	+104
Deferred tax assets	751	729	+22	+11	+11
Non-current assets	**19,620**	**18,555**	**+1,065**	**+772**	**+293**
Inventories	5,272	3,959	+1,313	+175	+1,138
Trade receivables	3,576	3,018	+558	+99	+459
Current financial assets	713	429	+284	0	+284
Other current assets	1,038	929	+109	-12	+121
Cash and cash equivalents	4,482	4,747	-265	+13	-278
Current assets	**15,081**	**13,082**	**+1,999**	**+276**	**+1,723**
TOTAL ASSETS	**34,701**	**31,637**	**+3,064**	**+1,048**	**+2,016**

EQUITY AND LIABILITIES

(in € millions)	December 31, 2021	December 31, 2020	Total change	Translation adjustments	Movement
Share capital	357	357	0		0
Share premiums	2,746	2,746	0		0
Reserves	11,871	9,530	+2,341	+617	+1,724
Non-controlling interests	(3)	(2)	-1	-1	0
Total equity	**14,971**	**12,631**	**+2,340**	**+616**	**+1,724**
Non-current financial liabilities	5,360	6,169	-809	+20	-829
Non-current lease liabilities	731	801	-70	+29	-99
Provisions for employee benefit obligations	3,362	3,700	-338	+72	-410
Provisions and other non-current liabilities	759	775	-16	+19	-35
Deferred tax liabilities	503	425	+78	+32	+46
Non-current liabilities	**10,715**	**11,870**	**-1,155**	**+172**	**-1,327**
Current financial liabilities	1,682	1,546	+136	+39	+97
Current lease liabilities	229	222	+7	+8	-1
Trade payables	3,174	2,291	+883	+95	+788
Trade payables under reverse factoring agreements	613	437	+176	+28	+148
Provisions and other current liabilities	3,317	2,640	+677	+91	+586
Current liabilities	**9,015**	**7,136**	**+1,879**	**+262**	**+1,617**
TOTAL EQUITY AND LIABILITIES	**34,701**	**31,637**	**+3,064**	**+1,049**	**+2,015**

3.4.1 GOODWILL

Goodwill before translation adjustments was up €28 million from December 31, 2020, reflecting the recognition of the provisional goodwill on the acquisition of Allopneus, which closed on December 30, 2021, and of the goodwill on the acquisition of Lumsden Corporation (High-Technology Materials).

Goodwill was reduced by the deconsolidation of Solesis, following the sale of a 51% stake in the company to the Altaris investment fund in May 2021.

3.4.2 INTANGIBLE ASSETS

Intangible assets stood at €1,811 million for the year, a €270 million decrease from December 31, 2020 (before the positive €101 million translation adjustment). The decrease primarily resulted from the deconsolidation of Solesis assets following the sale of a 51% stake in the company to Altaris for an amount of €200 million.

3.4.3 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment stood at €11,231 million at December 31, 2021, up just €23 million before the positive €387 million translation adjustment. The stability reflected the difficulties in completing all the initially planned capital projects in 2021, due to disruptions in the supply chain and shortages of components and spare parts. As a result, the Group was not fully able to make up for the carefully managed reduction in capital expenditure undertaken to conserve Group cash in 2020.

Additions to property, plant and equipment amounted to €1,494 million for the year, compared with €1,041 million in 2020.

Note that the deconsolidation of Solesis resulted in a €42 million reduction in the total for the year.

3.4.4 RIGHT-OF-USE ASSETS

Beginning in 2020, **right-of-use assets** have been recognized separately from property, plant and equipment. They amounted to €1,034 million at December 31, 2021, down €93 million year-on-year (before the positive €57 million translation adjustment), due to the fact that new leases did not exceed depreciation on prior-year leases.

3.4.5 NON-CURRENT FINANCIAL ASSETS AND OTHER NON-CURRENT ASSETS

Non-current financial assets and other non-current assets stood at €1,404 million at year-end, a €490 million increase (before the positive €49 million translation adjustment) that was attributable mainly to the net growth in loans and deposits stemming from:

- the preferred shares received in connection with the sale of a 51% stake in Solesis to the Altaris investment fund;
- 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.

3.4.6 INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES

Excluding the positive €58 million translation adjustment, **investments in equity-accounted companies** rose by €104 million over the year to €1,103 million. The increase primarily reflected changes in scope, including the addition of Solesis following the sale of a 51% stake to Altaris in the first half and the removal of Allopneus, which has been fully consolidated since December 30, 2021[(1)].

(1) *Note 17.1 to the consolidated financial statements.*

3.4.7 DEFERRED TAX

At December 31, 2021, the Group held a **net deferred tax asset** of €248 million, representing a year-on-year decline of €36 million (before the negative €20 million translation adjustment). The decrease was mainly due the net impact of (i) the €87 million reduction in the taxes recognized in other comprehensive income with regard with post-employment benefit obligations[(1)], and (ii) the €48 million increase following the sale of a 51% stake in Solesis.

3.4.8 TRADE WORKING CAPITAL

(in € millions)	December 31, 2021	December 31, 2020	Change	2021 *(as a % of sales)*	2020 *(as a % of sales)*
Inventories	5,272	3,959	+1,313	22.2%	19.3%
Trade receivables	3,576	3,018	+558	15.0%	14.7%
Trade payables	(3,174)	(2,291)	-883	(13.3)%	(11.2)%
Trade payables under reverse factoring agreements	(613)	(437)	-176	(2.6)%	(2.1)%
TRADE WORKING CAPITAL	**5,061**	**4,249**	**+812**	**21.3%**	**20.8%**

Trade working capital requirement increased by €812 million on the strong upturn in business during the year. As a percentage of sales, it rose by 0.5 point, to 21.3% at end-2021, from 20.8% at end-2020.

At €5,272 million, **inventories** represented 22.2% of sales at year-end, versus €3,959 million and 19.3% in 2020. Before the positive €175 million translation adjustment, this corresponded to a €1,138 million increase for the year.

The increase primarily stemmed from comparison with the historically low inventories at December 31, 2020, after sluggish second-half sales prevented the Group from fully replenishing its inventory.

A second factor was the impact of higher raw materials prices that have impacted year end inventories valuation.

Lastly, the amount of inventory in transit was significantly increased by disruptions in global supply chains, particularly the longer shipping times and worsening port congestion.

However, average inventories as a percentage of sales decreased over the year, reflecting the structural efforts pursued in 2021.

Trade receivables stood at €3,576 million or 15.0% of sales, a year-on-year increase of €558 million or 0.3 point of sales that tracked sales growth for the year. Whereas in 2020, economic support measures helped to avoid an increase in past-due receivables, in 2021 they held steady thanks to the Group's highly disciplined credit policies and the upturn in business, which enabled customers to rebuild their cash flow[(2)].

Trade payables, including those **covered by reverse factoring contracts**, ended the year at €3,791 million, or 15.9% of sales, up 2.6 points from December 31, 2020. The increase reflected the strong growth in business, as well as the general rise in raw material, transportation and energy costs.

3.4.9 CASH AND CASH EQUIVALENTS

Cash and cash equivalents stood at €4,482 million, down €278 million year-on-year excluding translation adjustments, as a result of the following main factors:

- increases from:
  - the €1,357 million in free cash flow,
  - €24 million in other favorable items;
- decreases from:
  - the €1,245 million reduction in debt during the year,
  - the payment of €414 million in dividends and profit shares.

(1) Note 18.1 to the consolidated financial statements.
(2) Note 20 to the consolidated financial statements.

3.4.10 TOTAL EQUITY

Including the positive €616 million in translation adjustments, **total equity** rose by €2,340 million over the year to represent €14,971 million at December 31, 2021.

The €1,724 million increase excluding translation adjustments was primarily due to the following factors:

- the €2,118 million increase in comprehensive income for the year, including:
  - €1,845 million in net income,
  - the €351 million favorable impact from post-employment benefit obligations,
  - the €83 million unfavorable impact from taxes payable on post-employment benefit obligations,
  - €5 million in other favorable items;
- the €415 million impact from dividend and other payments;
- the €21 million favorable impact from service costs on performance share plans.

At December 31, 2021, the **share capital** of Compagnie Générale des Établissements Michelin stood at €357,060,900, comprising 178,530,450 shares outstanding corresponding to 238,147,046 voting rights.

3.4.11 NET DEBT

Net debt stood at €2,789 million at December 31, 2021, down €742 million from December 31, 2020, primarily as a result of the following factors:

- €942 million in net cash flow, resulting from:
  - €1,357 million in free cash flow,
  - €415 million in distributions, of which €414 million in dividends;
- two factors increasing net debt by an aggregate €250 million:
  - a €167 million increase from the recognition of new leases,
  - a €83 million increase from translation adjustments;
- €50 million in other factors decreasing net debt.

CHANGES IN NET DEBT

(in € millions)	2021	2020
At January 1	**3,531**	**5,184**
Free cash flow[(1)] before M&A	-1,460	-2,043
Investments in new ventures	+107	+40
Financing of joint ventures and associates	-4	-1
Free cash flow[(1)]	**-1,357**	**-2,004**
Distributions and other	+415	+368
Share buybacks	-	+99
Employee share issue – Bib'Action	-	-31
New leases	+167	+211
Changes in scope of consolidation	+17	-8
Translation adjustments	+83	-262
Other	-67	-26
AT DECEMBER 31	**+2,789**	**+3,531**
CHANGE	**-742**	**-1,653**

(1) See definition in section 3.5.3

3.4.11.1 Gearing

Gearing declined to 18.6% at December 31, 2021 from 28% at year-end 2020, primarily due to the year-on-year reduction in net debt plus the increase in equity chiefly led by the growth in comprehensive income for the year.

3.4.11.2 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

On November 10, 2021, Standard & Poor's affirmed Michelin's short-term A-2 and long-term A- credit ratings, as well as its stable outlook.

On March 19, 2021, Fitch Ratings affirmed Michelin's short-term F2 and long-term A- credit ratings, as well as its stable outlook.

Moody's, whose rating has not been solicited since July 1, 2020, nevertheless affirmed, on April 28, 2021, CGEM's long-term credit rating and stable outlook:

	CGEM	Compagnie Financière Michelin SA	CFM Suisse
Long term	A3	N/A	N/A
Outlook	Stable	N/A	N/A

3.4.12 PROVISIONS

Provisions and other non-current liabilities declined by €16 million over the year, to €759 million from €775 million at December 31, 2020. Excluding the positive €19 million in translation adjustments, the decrease amounted to €35 million, stemming from (i) payments out of restructuring provisions set aside in prior years, partially offset by the new provisions written in 2021 as part of the French simplification and competitiveness plan announced on January 6, 2021; and (ii) the reclassification of certain short-term provisions as current liabilities.

3.4.13 EMPLOYEE BENEFITS

CHANGE IN THE FAIR VALUE OF THE NET DEFINED BENEFIT OBLIGATION

(in € millions)	Pension plans	Other plans	2021	2020
At January 1	**1,626**	**1,863**	**3,489**	**3,828**
Contributions paid to the funds	(19)	-	(19)	(142)
Benefits paid directly to the beneficiaries	(48)	(71)	(119)	(146)
Other movements	-	(3)	(3)	-
ITEMS RECOGNIZED IN OPERATING INCOME				
Current service cost	34	77	111	115
Actuarial (gains) or losses recognized on other long-term benefit plans	-	(8)	(8)	1
Past service cost resulting from plan amendments	(1)	-	(1)	(2)
Effect of plan curtailments or settlements	(1)	-	(1)	9
Effect of plan curtailments recognized within reorganizations and adaptation of activities	(72)	(96)	(168)	5
Other items	8	(1)	7	6
ITEMS RECOGNIZED OUTSIDE OPERATING INCOME				
Net interest on employee benefit obligations	12	29	41	54
ITEMS RECOGNIZED IN OTHER COMPREHENSIVE INCOME				
Translation adjustments	(4)	56	52	(94)
Actuarial (gains) or losses	(317)	(72)	(389)	(145)
Unrecognized assets due to the effect of the asset ceiling	38	-	38	-
AT DECEMBER 31	**1,256**	**1,774**	**3,030**	**3,489**

The net defined benefit obligation recognized at December 31, 2021 stood at €3,030 million, a year-on-year decrease of €459 million as reported and of €511 million excluding the positive €52 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 €138 million in contributions and benefits paid in 2021 (2020: €288 million), of which:
  - €19 million in contributions paid to fund management institutions (2020: €142 million),
  - €119 million in benefits paid directly to employees (2020: €146 million),
- a €108 million expense recognized in operating income in 2021 (2020: €134 million) that primarily resulted from the cost of defined benefit plans;
- a €168 million gain recognized in operating income, stemming from the French simplification and competitiveness plan announced on January 6, 2021;
- the €41 million in net interest expense on the net defined benefit obligation, recognized outside of operating income (2020: €54 million);
- the €389 million in actuarial gains recorded in 2021 (2020: actuarial losses of €145 million), which corresponded to:
  - €350 million in actuarial gains on defined benefit obligations, resulting mainly from increases in discount rates, of which €38 million was not recognized due to the effect of the asset ceiling,
  - €39 million in actuarial gains on plan assets, due to the fact that the actual rate of return on plan assets was higher than the discount rate.

In addition, contributions paid by the Group to defined contribution plans amounted to €218 million in 2021 (2020: €217 million).

3.5 CONSOLIDATED CASH FLOW STATEMENT REVIEW

3.5.1 CASH FLOW FROM OPERATING ACTIVITIES

(in € millions)	2021	2020	Change
Segment EBITDA	**4,700**	**3,631**	**+1,069**
Change in net inventories	-1,106	+552	-1,658
Change in net trade receivables	-370	+92	-462
Change in net trade payables	+647	-19	+666
Restructuring cash costs	-214	-206	-8
Other changes in provisions	+13	-185	+198
Tax and interest paid	-769	-580	-189
Other	+5	+81	-76
NET CASH FROM OPERATING ACTIVITIES	**2,906**	**3,366**	**-460**

At €4,700 million, or 19.7% of sales, segment **EBITDA** was up €1,069 million compared with 2020 (at 17.7% of sales), reflecting the €1,088 million increase in segment operating income over the year.

Net cash from operating activities declined by €460 million to €2,906 million for the year, as the €1,069 million increase in EBITDA was more than offset by:

- a €1,454 million decrease from the rise in trade working capital following the sharp upturn in business and the rebuilding of inventories;
- a €189 million decrease from the higher tax and interest paid;
- an aggregate €122 million increase from other factors, including a €198 million reduction in provisions.

Restructuring-related outlays were unchanged overall, with just a slight €8 million increase for the year.

3.5.2 CAPITAL EXPENDITURE

(in € millions)	2021	2020	2021/2020	2021 *(as a % of sales)*	2020 *(as a % of sales)*
Additions to intangible assets and PP&E	**1,705**	**1,221**	**+484**	**7.2%**	**6.0%**
Investment grants received and change in capital expenditure payables	(226)	148	-374	(0.9)%	0.7%
Proceeds from sales of intangible assets and PP&E	(38)	(46)	+8	(0.2)%	(0.2)%
NET ADDITIONS TO INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT	**1,441**	**1,323**	**+118**	**6.1%**	**6.5%**

Additions to intangible assets and property, plant and equipment amounted to €1,705 million in 2021, compared with €1,221 million in 2020. After the scale-backs in 2020 intended to conserve cash as demand fell sharply due to Covid-19, the increase in 2021 reflected the Group's determination to continue investing to (i) improve the flexibility, competitiveness and safety of its manufacturing facilities; (ii) deploy technological innovations to support its expansion strategy around and beyond tires; and (iii) address the challenges of the energy transition.

However, total outlays for the year still fell short of the €1,801 million committed in 2019, primarily because the disruptions in global supply chains, shortages of materials, components and spare parts, and tight labor market conditions that adversely impacted supplier businesses in certain regions combined to prevent the Group from completing all its initially planned capital projects and investments and from making up for the carefully managed reduction in capital expenditure undertaken to conserve Group cash in 2020.

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;
- in China;
- in Thailand.

Road transportation tires:

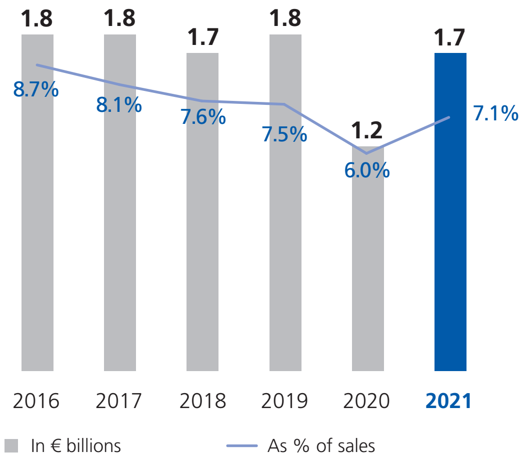
- in Thailand.

Specialty products:

- mining tires;
- off-the-road tires (Agricultural, Construction, Materials Handling);
- two-wheel tires.

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

CAPITAL EXPENDITURE
(in € billions)



Note that the Group's financing depends on its ability to generate cash flow as well as on market opportunities. As a result, there is generally no direct link between financing sources and capital expenditure projects.

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

01
02
03
04

3.5.3 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.

(in € millions)	2021	2020
Net cash from operating activities	2,906	3,366
Routine capital expenditure (maintenance, IT, dealerships, etc.)	(1,189)	(722)
AVAILABLE CASH FLOW	**1,717**	**2,644**
Competitiveness and growth investments	(381)	(355)
Investments in new ventures	(135)	(144)
Acquisitions	(107)	(39)
Other	263	(102)
FREE CASH FLOW	**1,357**	**2,004**

After subtracting €1,189 million in routine capital expenditure, available cash flow stood at €1,717 million for the year ended December 31, 2021.

Free cash flow was positive, at €1,357 million, after outlays of €381 million in competitiveness and growth investments and €135 million in investments in new ventures. The €107 million in acquisitions primarily concerned the purchase of all the outstanding shares in Allopneus that the Group did not already own, as well as purchases of controlling interests that were individually not material.

3.5.4 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 €1,793 million in structural free cash flow in 2021, the Group met the guidance issued on October 24, 2021 targeting more than €1,000 million in structural free cash flow for the year.

	2021	2020
FREE CASH FLOW	**1,357**	**2,004**
Acquisitions	107	39
FREE CASH FLOW EXCLUDING ACQUISITIONS & DISPOSALS	**1,464**	**2,043**
Impact of raw materials costs on working capital	329	-33
STRUCTURAL FREE CASH FLOW	**1,793**	**2,010**

3.6 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.

The theoretical tax liability was calculated at a standard rate of 25%, corresponding 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, the Group's weighted average cost of capital (WACC) is estimated at 7.5%, 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.

(in € millions)	**2021**	**2020**
Segment operating income restated for ROCE calculation	2,819	1,677
Average standard income tax rate used for ROCE calculation	25%	25%
Segment operating income after tax (NOPAT)	**2,114**	**1,258**
Economic assets at December 31	21,201	19,772
Average economic assets	**20,496**	**21,037**
Consolidated ROCE	**10.3%**	**6.0%**

3.7 TREND INFORMATION

3.7.1 OUTLOOK

In 2022, in a still highly uncertain environment due to the unfolding health crisis, Passenger car and Light truck tire markets are expected to expand by 0% to 4% over the year, Truck tire markets by between 1% and 5%, and the Specialty markets by 6% to 10%. Based on this scenario, the Group expects to grow in line with the markets.

Considering the raw material prices and transportation costs observed in early 2022, the Group also anticipates that these factors will have a significantly negative impact on its 2022 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, and barring any new systemic impact from Covid-19,[1] Michelin's objectives are to deliver full-year segment operating income in excess of €3.2 billion at constant exchange rates and structural free cash flow of more than €1.2 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.

3.7.2 RECENT EVENTS

Redemption of convertible bonds due in 2022

The Group redeemed the outstanding convertible bonds due January 10, 2022, for a nominal amount of $592 million (€523 million at the reporting date exchange rate).

Additional information is provided in note 26.1 of the consolidated financial statements.

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

(1) Serious supply chain disruptions or restrictions on freedom of movement that would result in a significant drop in the tire markets.

3.8 SHARE INFORMATION

3.8.1 THE MICHELIN SHARE

Traded on the Euronext Paris stock exchange

- Compartment A;
- Eligible for the SRD deferred settlement system;
- ISIN: FR 0000121261;
- Par value: €2;
- Traded in units of: 1.

Market capitalization

- €25.735 billion at December 31, 2021.

Average daily trading volume

- 435,955 shares since January 1, 2021.

Indices

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

- CAC 40: 1.47% of the index at December 31, 2021;
- Euronext 100: 0.67% of the index at December 31, 2021.

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

3.8.2 SHARE DATA

Share price *(in €)*	2021	2020	2019	2018	2017	2016
Session high	146.00	112.80	119.50	130.85	128.40	106.80
Session low	103.30	68.00	83.74	82.68	98.93	77.40
High/Low ratio	1.41	1.66	1.43	1.58	1.30	1.38
Closing price, end of period	144.15	104.95	109.10	86.70	119.55	105.70
Average closing price over the period	129.75	95.49	104.36	109.40	115.65	91.97
Change in the Michelin share price over the period	37.35%	-3.80%	25.84%	-27.48%	13.10%	20.25%
Change in the CAC 40 index over the period	*28.85%*	*-7.14%*	*26.37%*	*-10.95%*	*9.26%*	*4.86%*
Change in the Stoxx 600 index over the period	*22.25%*	*-4.04%*	-	-	-	-
Market capitalization *(at end of the period, in € billions)*	**25.74**	**18.72**	**19.49**	**15.59**	**21.45**	**19.03**
Average daily trading volume over the period	435,955	548,883	577,545	649,347	503,534	554,262
Average number of shares outstanding	178,378,193	178,497,159	179,669,608	179,384,513	182,212,806	182,122,667
Volume of shares traded over the period	112,476,357	141,062,953	147,273,882	165,583,378	128,401,095	142,445,218

According to statistical data collected by Euronext Paris.

3.8.3 PER-SHARE DATA

(in € per share, except ratios)	2021	2020	2019	2018	2017
Net asset value per share	83.9	**70.8**	74.1	67.8	62.7
Basic earnings per share	10.31	3.52	9.69	9.30	9.39
Diluted earnings per share[(1)]	10.24	3.51	9.66	9.25	9.34
PER	**14.0**	**29.8**	**11.3**	**9.3**	**12.7**
Dividend per share[(2)]	4.50	2.30	2.00	3.70	3.55
Payout ratio (excl. non-recurring items)	42.0%	47.0%	19.5%	36.4%	36.0%
Yield[(3)]	3.1%	2.2%	1.8%	4.3%	3.0%

(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 of May 13, 2022.
(3) Dividend/share price at December 31.

3.8.4 CAPITAL AND OWNERSHIP STRUCTURE

At December 31, 2021, Michelin's share capital amounted to €357,060,900.

	At December 31, 2021			At December 31, 2020			At December 31, 2019		
	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		23.6%	27.3%		27.1%	29.3%		27.4%	29.1%
Non-resident institutional investors	4,123	65.5%	59.2%	3,938	61.8%	57.1%	3,735	61.3%	57.1%
Individual shareholders	139,099	9.2%	11.5%	136,935	9.1%	11.4%	141,628	9.5%	11.8%
Employee share ownership plan	62,118	1.7%	2.0%	69,378	2.0%	2.3%	58,079	1.8%	2.0%
TOTAL	**205,340**	**178,530,450[(1)] SHARES**	**238,147,046 VOTING RIGHTS**	**210,251**	**178,340,086 SHARES**	**243,584,598 VOTING RIGHTS**	**203,442**	**178,627,555 SHARES**	**240,861,826 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, 2021, 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.

3.9 HIGHLIGHTS

3.9.1 STRATEGY

January 6, 2021 — Michelin launches a simplification and competitiveness project to support developments in its operations in France.

To prepare for the future, Michelin has launched a three-year project to upgrade and transition its manufacturing, corporate and administrative operations in France. As part of this process, the Group has reaffirmed its commitment to positioning France in the production of premium and specialty tires while continuing to base new high value-added businesses in the country, particularly in the services, sustainable materials, energy transition and recycling segments. The simplification and competitiveness plan will be supported by an innovative social dialogue process. The 2021 Collective Settlement Agreement signed on June 7 by the CFDT, CFE-CGC and SUD trade unions was approved by the local labor authorities (DREETS) on June 14, enabling deployment of the Agreement's voluntary early retirement and outplacement measures.

March 19, 2021 – Michelin partners with sennder, Europe's leading digital freight forwarder.

Through their partnership, Michelin and sennder will deliver a suite of fleet services to make road freight more cost effective and less carbon intensive. sennder and Michelin's collaboration will initially focus on Northern Europe and Iberia, with plans to scale it across other European markets throughout 2021.

April 2, 2021 – BMW Group reaffirms its trust in Michelin tires.

The benefits of Michelin and BMW's long-standing, 35-year relationship, built on the shared values of precision, performance, responsibility and innovation, have again been illustrated with the development of the MICHELIN Pilot Sport 4S and the MICHELIN Pilot Sport Cup 2 Connect tires specifically for the BMW M3 and M4.

April 8, 2021 – Michelin presents its strategy for 2030: Michelin in Motion.

At the Group's Capital Markets Day, Florent Menegaux presented Michelin in Motion, the Group's "All Sustainable" strategy for 2030, which is based on constantly seeking the right balance between People, Profit and Planet. He also presented the Group's ambitious targets for 2030 and reaffirmed the commitment to driving strong expansion in five tire-related and other business segments: Services & Solutions, flexible composites, healthcare, metal 3D printing and hydrogen mobility.

April 23, 2021 – Harley-Davidson and Michelin pursue their long-standing collaboration.

Michelin has custom-designed the MICHELIN Scorcher Adventure tire for the Harley-Davidson Pan America™ 1250 motorcycle. Over the past 13 years, Michelin has nurtured a close working relationship with Harley-Davidson, based on performance, quality and innovation, and today, its tires equip more than 40% of the motorcycles manufactured by the American brand.

May 17, 2021 – Camso earns recognition as a "Partner-level supplier for 2020" in the John Deere Achieving Excellence Program.

The Partner-level status is Deere & Company's highest supplier rating. The honor recognizes Camso's dedication to providing products and services of outstanding quality as well as its commitment to continuous improvement.

May 21, 2021 – The Annual Meeting of Michelin shareholders was held behind closed doors in compliance with French health rules. The event was an opportunity for a number of people to pay tribute to Michel Rollier, who stepped down as Chairman of the Supervisory Board. His successor, Barbara Dalibard, was elected at the same-day meeting of the Board.

June 1, 2021 – Movin'On's governance body is now shared.

A number of chief executives of leading global corporations have joined with Florent Menegaux, President of Movin'On and Managing Chairman of the Michelin Group. The new shared governance represents a major milestone in Movin'On's development, designed to set the organization's strategic direction and deliver actionable solutions to speed the transition to sustainable mobility. Movin'On's governance body now comprises 12 CEOs.

September 24, 2021 – Engie supports Michelin in decarbonizing its historic Cataroux plant in Clermont-Ferrand.

Through the partnership, Michelin is seeking to reduce the facility's energy use while cutting its greenhouse gas emissions. These goals fit seamlessly with the Group's "All Sustainable" vision, particularly the commitment to fighting global warming.

October 1, 2021 – At its fifth annual Supplier Awards, Michelin honors nine of its best suppliers.

Michelin recognized nine of its best suppliers in the industrial purchasing, raw materials purchasing and service procurement categories based on five criteria: Sustainability, Innovation, Quality, Risk Management and Support provided during the crisis. Michelin believes that the quality and effectiveness of its supplier relations are essential drivers of its sustainable performance.

October 1, 2021 – Fenner™ Precision Polymers acquires Lumsden Corporation, a leading manufacturer of metal conveyor belting. The deal strengthens the position of Fenner™ Precision Polymers as a leading supplier of highly specialized conveying products.

October 5, 2021 – Acting in its capacity as Non-Managing General Partner of Compagnie Générale des Établissements Michelin (CGEM) and with the approval of the Supervisory Board, Société Auxiliaire de Gestion (SAGES) renewed Florent Menegaux as Managing General Partner and Yves Chapot as General Manager for new four-year terms, which will begin when their current terms end at the close of the next Annual Shareholders Meeting, on May 13, 2022, and end at the close of the Annual Shareholders Meeting to be held in the first half of 2026.

December 30, 2021 - Michelin acquires 100% ownership of Allopneus SAS

With this acquisition of 100% ownership of Allopneus, the French leader in sales and tire fitting online for private individuals, Michelin consolidates its e-commerce presence in France. Each year, Allopneus is selling around 3.6 million touring tires and receives around 27 million visits on its site. Michelin was owning so far 40% of the company.

3.9.2 INNOVATION AND NEW ECOSYSTEMS

February 9, 2021 – CAMSO optimizes productivity for its construction industry customers.

CAMSO has introduced the CAMSO TLH 732+ telehandler tire that delivers 64% more service life than its predecessor, the TLH 732. The new tire offers professionals in the construction industry performance, long-lasting durability, puncture resistance and improved traction.

April 2021 – Symbio, a Faurecia Michelin Hydrogen Company, is helping to accelerate the transition to hydrogen mobility.

Symbio is on a roll with its two development projects underway, one with bus manufacturer Safra and the other with Stellantis, in a further illustration of the growing importance of hydrogen technology in making zero-emission mobility a reality. The project to build Europe's largest hydrogen fuel cell plant in Saint-Fons, France, will also actively help to accelerate the transition to hydrogen mobility. It is scheduled to come on stream in 2023.

April 15, 2021 – Michelin and Altaris announce their intention to join forces to speed the growth of Solesis, a Michelin subsidiary specializing in biomaterials for the healthcare industry.

The Partnership Agreement has three components: (i) the acquisition of a 51% stake in Solesis by Altaris; (ii) the deployment of a governance system; and (iii) a research and development partnership between Michelin and Solesis. The announcement offers another compelling illustration of the Group's commitment to expanding beyond tires, with a focus on high-tech materials.

April 15, 2021 – ProovStation partners with Michelin to reduce the time and costs of tire inspection.

The solution developed by ProovStation, the European leader in automated inspection, has been enhanced by Michelin's expertise thanks to MICHELIN QuickScan technology, which can check tire wear automatically and instantaneously with millimeter precision. In addition to its technology, which is protected by more than 15 patents, Michelin is contributing its experience in analyzing tire data using its proprietary artificial intelligence algorithms.

April 23, 2021 – Michelin take a major step with Carbios towards developing 100% sustainable tires.

Michelin has successfully validated the use of Carbios'enzymatic recycling technology for PET(1) plastic waste in its tires. This takes the Group one step closer to fulfilling its 2050 ambition of manufacturing tires that are 100% sustainable, i.e., made entirely of renewable, recycled or otherwise sustainable materials, with an interim goal of 40% by 2030.

April 30, 2021 – Michelin launches two new EV tire ranges.

Following on from the February launch of the MICHELIN Pilot Sport EV, the first tire in the Pilot Sport family purpose-engineered for electric sports cars, Michelin has announced the roll-out of the MICHELIN X Incity EV Z tire, the Group's first family of tires designed specifically for electric buses. With the new ranges, Michelin is supporting the transition towards cleaner, more efficient and longer-range electric mobility solutions. The EV market represents a genuine growth opportunity and energy transition accelerator.

May 19, 2021 – The new MICHELIN Guide – Tablet Hotels app wins its first award.

The MICHELIN Guide and Tablet Hotels have combined their expertise to develop a new global app that provides access to all the selections of their inspectors and experts in more than 30 destinations in the Americas, Europe, and Asia. The application alone contains nearly 20,000 curated addresses. The Webby Awards, which honor excellence on the Internet, awarded it the "Webby Honoree" distinction in the "Apps and Software" category.

May 27, 2021 – The new MICHELIN TRAILXBIB tire increases farm yields.

Designed in association with farmers in a number of countries, the MICHELIN TRAILXBIB tire incorporates the innovative MICHELIN Ultraflex technology that improves farm yields by reducing soil compaction. In addition, the MICHELIN TRAILXBIB range is compatible with remote inflation systems, which enable operators to easily adjust tire pressure in real time according to the driving surface or soil conditions.

May 28, 2021 – AddUp takes metal 3D printing to the next level.

AddUp, the joint venture created by Michelin and Fives in 2016 and specialized in metal 3D printing, has developed a new generation of machines with promising features for industry. Michelin believes metal 3D printing is one of the growth drivers in the high-tech materials field. The new-generation machines support Michelin's ambitions to expand its operations beyond tires.

(1) Polyethylene terephthalate. PET is a currently oil-based plastic; the monomers used, ethylene glycol and terephthalic acid, come from petroleum processing. PET is the raw material of one of the main textile fibers used in tire reinforcements.

June 1, 2021 – 2021 Movin'On: Michelin presents two innovations to accelerate the development of sustainable mobility.

The WISAMO project, an automated, telescopic, inflatable wing sail system that will help to decarbonize maritime shipping, and a high-performance racing tire containing 46% sustainable materials offer further tangible, real-world proof of the Group's determination to make mobility increasingly sustainable. The innovations also demonstrate Michelin's commitment to basing a portion of its growth on the development of new business activities, while showcasing its ability to incorporate an ever-higher percentage of sustainable materials into its products without compromising on their performance. Michelin expects to use 100% sustainable materials in all its tires by 2050.

June 17, 2021 – KRISTAL.aero and Michelin launch KRISTAL.air, a mobile app for everyone who flies light aircraft.

The new app expresses Michelin Aviation's commitment to fostering connected mobility, safe flying and closer customer relationships. It is also compatible with the Group's "All Sustainable" vision. Pilots can now optimize their flights, in particular by enhancing the quality of their landings and reducing their environmental impact with greater fuel efficiency and lower CO_2 emissions.

June 23, 2021 – Michelin designs the new MICHELIN X AGVEV, the first tire specifically engineered for automatic guided vehicles (AGVs).

Today, most AGVs operating in port facilities are electrically powered. The EV-marked MICHELIN X AGVEV is the first port tire that helps to cut CO_2 emissions and increase an electric vehicle's battery life, thanks to its very low rolling resistance.

June 30, 2021 – Michelin introduces two new truck tires, the MICHELIN X® MULTI™ ENERGY™ and the MICHELIN X® MULTI GRIP™.

In February 2021, Michelin announced the launch of new MICHELIN X® MULTI™ ENERGY™ tires delivering greater fuel efficiency, lower CO_2 emissions, longer mileage and a host of other benefits. Four months later, the lineup has been expanded with the new MICHELIN X® MULTI GRIP™ tire, designed to ensure maximum safety and mobility in extreme winter conditions and on wet roads. The new tire not only helps to make overland shipping more sustainable, in particular by reducing CO_2 emissions per kilometer driven, it can also be regrooved and retreaded to extend its service life.

June 30, 2021 – Michelin launches "WATEA by Michelin" to support its corporate customers in transitioning to zero-emission mobility.

Based on an all-inclusive monthly subscription and a palette of more than 80 services, the new Michelin solution will facilitate access to charging stations and make it easier to manage battery-powered and, in the near future, hydrogen-powered commercial EV fleets. This unprecedented, all-in-one solution is a further illustration of the Group's expertise in services, one of its major new growth areas.

September 2, 2021 – Michelin introduces MICHELIN CrossClimate 2, the new generation of MICHELIN All-Season tires. With its new technologies, the MICHELIN CrossClimate 2 tire is designed to uphold its market leadership and set the standard for all-season tires, without compromising on any performance factors. Safer, longer-lasting and more economical, the MICHELIN CrossClimate 2 is a further illustration of the Group's "All Sustainable" strategy. It also demonstrates the Group's commitment to investing and innovating to develop premium tires delivering very high technological value.

October 13, 2021 – Michelin subsidiary ResiCare finds an initial outlet "beyond tires."

The technological advance, intended for the wood industry, is the result of a collaboration that began in 2018 between ResiCare and Allin, a French plywood panels manufacturer. As a market leader in adhesive solutions, ResiCare is successfully supporting Michelin's "All Sustainable" vision and its commitment to expanding beyond tires. The subsidiary is dedicated to producing high-performance adhesive resins, free of toxic molecules, from bio-based feedstocks.

November 17, 2021 – Michelin introduces MICHELIN Connected Fleet, its new umbrella brand for fleet services.

At the Solutrans trade show, Michelin presented MICHELIN Connected Fleet, which now brings together all the Group's fleet management services and solutions under the same banner. Comprising Masternaut in Europe, NexTraq in North America, and Sascar in Latin America, MICHELIN Connected Fleet is currently used by 70,000 customers worldwide, representing a fleet of 600,000 vehicles in 48 countries that collect and process data from approximately 300 million trips a year.

November 19, 2021 – Michelin acquires AirCaptif, a specialty manufacturer of ultralight inflatable structures.

The acquisition of the innovative French startup with unique know-how in the field of ultralight inflatable structures for protection and insulation is fully aligned with Michelin's sustainable growth strategy beyond tires. It also illustrates the Group's commitment to expanding in high-tech materials.

November 25, 2021 – Michelin sets out the challenges of 100% sustainable tires at the Group's global Research and Development center in Clermont-Ferrand.

At its first Media Day, Michelin reaffirmed its target of using an average of 40% sustainable materials in its tires by 2030 and of raising this rate to 100% by 2050. To meet these objectives, Michelin is leveraging all its powerful innovation expertise and its ability to develop innovative new technologies in ecosystems, while taking action at every stage of the tire life cycle, from design, manufacture and logistics to use, EOL collection and recycling.

3.9.3 MOTORSPORTS

March 10, 2021 – Michelin launches its new MICHELIN Wild Enduro Racing Line mountain bike tire.

The new line has already demonstrated its capabilities with wins in some of the world's most challenging races, including two Elite World Enduro Championship titles with Sam Hill; one U21 World Enduro Championship title with Elliot Heap; and two Masters World Enduro Championship titles with Karim Amour.

August 18, 2021 – Michelin's first racing tire made from 46% sustainable materials, unveiled a few weeks earlier at Movin'On, takes its first parade laps.

Michelin's first racing tire made from 46% biosourced and recycled materials took its first laps around the Le Mans 24 Hours track, in a concrete illustration of the Group's "All Sustainable" vision. By 2050, every Michelin tire will be made entirely of sustainable materials, with an interim target of 40% in 2030.

September 15, 2021 – Michelin and Dorna extend their MotoGP™ partnership.

By renewing its partnership with Dorna Sports, Michelin will remain the exclusive official tire supplier of the premier class of motorcycle Grand Prix racing from 2024 to 2026. "*At Michelin, we see motorsports like a lab that encourages transfers of expertise and swift application of our sustainable solutions that benefit everyone*" Florent Menegaux.

3.10 FIVE-YEAR SUMMARY OF CONSOLIDATED KEY FIGURES AND RATIOS

(in € millions)	**2021**	**2020**	**2019**	**2018***	**2017**
Sales	23,795	20,469	24,135	22,028	21,960
% change	+16.3%	-15.2%	+9.6%	+0.3%	+5.0%
Total employee benefit costs	6,445	5,996	6,365	6,038	5,871
as a % of sales	27.1%	29.3%	26.4%	27.4%	26.7%
Number of full-time equivalent employees at period-end	118,400	117,500	121,300	111,100	107,800
Research and development expenses	682	646	687	648	641
as a % of sales	2.9%	3.2%	2.8%	2.9%	2.9%
Segment EBITDA(1)	**4,700**	**3,631**	**4,763**	**4,119**	**4,087**
Segments operating income	2,966	1,878	3,009	2,775	2,742
Segment operating margin	12.5%	9.2%	12.5%	12.6%	12.5%
Operating income	2,777	1,403	2,691	2,550	2,631
Operating margin	11.7%	6.9%	11.1%	11.6%	12.0%
Cost of net debt	192	242	330	200	176
Other financial income and expenses	(4)	(14)	(5)	16	0
Income before taxes	2,471	979	2,236	2,230	2,354
Income tax	626	354	506	570	661
Effective tax rate	25.3%	36.2%	22.6%	25.6%	28.1%
Net income	1,845	625	1,730	1,660	1,693
as a % of sales	7.8%	3.1%	7.2%	7.5%	7.7%
Dividends	410	357	666	637	585
Net cash from operating activities	**2,906**	**3,366**	**3,321**	**2,831**	**2,741**
as a % of sales	12.2%	16.4%	13.8%	12.9%	12.5%
Gross purchases of intangible assets and PP&E	1,705	1,221	1,801	1,669	1,771
as a % of sales	7.2%	6.0%	7.5%	7.6%	8.1%
Net debt(2)	2,789	3,531	5,184	4,056	716
Total equity	14,971	12,631	13,229	12,181	11,261
Gearing	19%	28%	39%	33%	6%
Net debt(2)/segment EBITDA(1)	0.59	0.97	1.09	0.98	0.18
Segment operating income/net interest expense(3)	13.7	7.9	10.1	13.3	15.9
Free cash flow(4)	1,357	2,004	1,142	-1,985	662
ROE(5)	12.3%	4.9%	13.1%	13.6%	15.0%
Operating ROCE(6)	10.3%	6.0%	10.0%	-	-
PER-SHARE DATA *(in €)*					
Net assets per share(7)	83.9	70.8	74.1	67.8	62.7
Basic earnings per share	10.31	3.52	9.69	9.30	9.39
Diluted earnings per share	10.24	3.51	9.66	9.25	9.34
Price-earnings ratio(8)	14.0	29.8	11.3	9.3	12.7
Dividend for the year(9)	4.50	2.30	2.00	3.70	3.55
Payout ratio(10)	42.0%	47.0%	19.5%	36.4%	36.0%
Yield(11)	3.1%	2.2%	1.8%	4.3%	3.0%

* *In the above table, the 2018 figures are stated as published in the 2019 Universal Registration Document. See note 2.5 to the consolidated financial statements for that year for details of restatements compared with the figures published in the 2018 Registration Document.*

(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 financial 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: as calculated in section 3.5.3.*

(5) *ROE: net income attributable to shareholders divided by shareholders' equity excluding non-controlling interests.*

(6) *Operating ROCE: based on the method in use since 2021 as explained in 3.6. 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) *Price-earnings ratio: share price at the end of the period/basic earnings per share.*

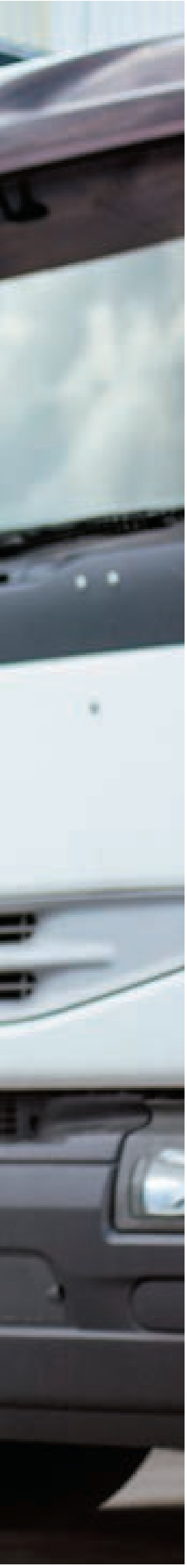
(9) *Subject to approval by the Annual Shareholders Meeting of May 13, 2022.*

(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.*

04

CONSOLIDATED FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2021



CONSOLIDATED FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2021 04

CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2021

DETAILED SUMMARY OF THE NOTES TO THE FINANCIAL STATEMENTS

CONSOLIDATED INCOME STATEMENT

(in € millions, except per share data)	Note	2021	2020(1)
Sales	5	23,795	20,469
Cost of sales		(16,810)	(14,754)
Gross income		**6,985**	**5,715**
Sales and marketing expenses		(1,133)	(1,070)
Research and development expenses		(682)	(646)
General and administrative expenses		(2,137)	(1,994)
Segment other income and expenses	8	(67)	(127)
Segment operating income	**5**	**2,966**	**1,878**
Other operating income and expenses	9	(189)	(475)
Operating income		**2,777**	**1,403**
Cost of net debt	10	(192)	(242)
Other financial income and expenses	10	(4)	(14)
Net interest on employee benefit obligations	27.1	(41)	(56)
Share of profit/(loss) from equity-accounted companies	17	(69)	(112)
Income before taxes		**2,471**	**979**
Income tax	11	(626)	(354)
NET INCOME		**1,845**	**625**
▶ Attributable to the shareholders of the Company		1,844	632
▶ Attributable to the non-controlling interests		1	(7)
EARNINGS PER SHARE *(in €)*	**12**		
▶ Basic		10.31	3.52
▶ Diluted		10.24	3.51

(1) *The 2020 figures have been adjusted for comparison purposes (see note 2.8 to the consolidated financial statements).*

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

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(in € millions)	Note	2021	2020
Net income		**1,845**	**625**
Post-employment benefits	27.1	351	145
Tax effect – Post-employment benefits	18	(83)	(33)
Equity instruments at fair value through OCI – changes in fair value	15.1	31	28
Tax effect – equity instruments at fair value through OCI	18	(7)	(7)
Other comprehensive income that will not be reclassified to the income statement		***292***	***133***
Cash flow hedges – changes in fair value		(10)	16
Currency translation differences		616	(976)
Other		(9)	(2)
Other comprehensive income/(loss) that may be reclassified to the income statement		***597***	***(962)***
Other comprehensive income/(loss)		**889**	**(829)**
TOTAL COMPREHENSIVE INCOME/(LOSS)		**2,734**	**(204)**
▶ Attributable to the shareholders of the Company		2,734	(198)
▶ Attributable to the non-controlling interests		-	(6)

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

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(in € millions)	Note	December 31, 2021	December 31, 2020
Goodwill	13	2,286	2,136
Intangible assets	13	1,811	1,980
Property, plant and equipment (PP&E)	14.1	11,231	10,821
Right-of-use assets	14.2	1,034	1,083
Non-current financial assets and other non-current assets	15	1,404	865
Investments in equity-accounted companies	17	1,103	941
Deferred tax assets	18	751	729
Non-current assets		**19,620**	**18,555**
Inventories	19	5,272	3,959
Trade receivables	20	3,576	3,018
Current financial assets	21	713	429
Other current assets	22	1,038	929
Cash and cash equivalents	23	4,482	4,747
Current assets		**15,081**	**13,082**
TOTAL ASSETS		**34,701**	**31,637**
Share capital	24	357	357
Share premiums	24	2,746	2,746
Reserves	25	11,871	9,530
Non-controlling interests		(3)	(2)
Total equity		**14,971**	**12,631**
Non-current financial liabilities	26	5,360	6,169
Non-current lease liabilities	26	731	801
Provisions for employee benefit obligations	27.1	3,362	3,700
Provisions and other non-current liabilities	29	759	775
Deferred tax liabilities	18	503	425
Non-current liabilities		**10,715**	**11,870**
Current financial liabilities	26	1,682	1,546
Current lease liabilities	26	229	222
Trade payables		3,174	2,291
Trade payables under reverse factoring agreements	3.26	613	437
Provisions and other current liabilities	30	3,317	2,640
Current liabilities		**9,015**	**7,136**
TOTAL EQUITY AND LIABILITIES		**34,701**	**31,637**

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 premium (note 24)	Reserves (note 25)	Non-controlling interests	Total equity
At January 1, 2020	**357**	**2,789**	**10,080**	**3**	**13,229**
Net income/(loss)	-	-	632	(7)	625
Other comprehensive income/(loss)	-	-	(830)	1	(829)
Total comprehensive income/(loss)	**-**	**-**	**(198)**	**(6)**	**(204)**
Issuance of shares	1	54	-	-	55
Share buybacks	-	-	(99)	-	(99)
Cancellation of shares	(2)	(97)	99	-	-
Sales of treasury shares	-	-	-	-	-
Dividends and other appropriations	-	-	(368)	-	(368)
Share-based payments – current service cost	-	-	14	-	14
Other	1	-	2	1	4
At December 31, 2020	**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	-	-	-	-	-
Sales of treasury shares	-	-	1	-	1
Dividends and other appropriations	-	-	(414)	(1)	(415)
Share-based payments – current service cost	-	-	21	-	21
Other	-	-	-	-	-
AT DECEMBER 31, 2021	**357**	**2,746**	**11,871**	**(3)**	**14,971**

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

CONSOLIDATED STATEMENT OF CASH FLOWS

(in € millions)	Note	2021	2020
Net income		1,845	625
Adjustments			
▶ Cost of net debt	10	192	242
▶ Other financial income and expenses	10	4	14
▶ Net interest on employee benefit obligations	27.1	41	56
▶ Income tax	11	626	354
▶ Amortization, depreciation and impairment of intangible assets and PP&E	6	1,734	1,753
▶ Other operating income and expenses	9	189	475
▶ Share of profit from equity-accounted companies	17	69	112
Segment EBITDA	**3.7.2**	**4,700**	**3,631**
Other operating income and expenses (cash) and change in provisions	31	(201)	(385)
Interest and other financial income and expenses received and paid, net	31	(207)	(265)
Income tax paid	18.2	(562)	(315)
Change in working capital, net of impairment	31	(824)	700
Net cash from operating activities		**2,906**	**3,366**
Purchases of intangible assets and PP&E	31	(1,479)	(1,369)
Proceeds from sales of intangible assets and PP&E		38	46
Equity investments in consolidated companies, net of cash acquired		(82)	(75)
Disposals of equity investments in consolidated companies, net of cash sold		(3)	5
Purchases of equity instruments at fair value		(25)	(15)
Disposals of equity instruments at fair value		3	45
Cash flows relating to other financial assets	31	(203)	(25)
Net cash from/(used in) investing activities		**(1,751)**	**(1,388)**
Proceeds from issuance of shares	24	-	55
Dividends paid to the shareholders of the Company	24	(410)	(357)
Cash flows relating to financial liabilities	31	(1,043)	1,784
Share buybacks	24	-	(99)
Other		20	(39)
Net cash from/(used in) financing activities		**(1,433)**	**1,344**
Effect of changes in exchange rates		**13**	**(41)**
INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		**(265)**	**3,281**
Cash and cash equivalents at January 1		**4,747**	**1,466**
Cash and cash equivalents at December 31	**23**	**4,482**	**4,747**

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 11, 2022.

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 2.8 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, 2021 in the European Union

The following amendments to IFRSs applied from January 1, 2021 have no material impact on the consolidated financial statements:

IFRIC clarification on IAS 19

The IFRIC has clarified the interpretation of IAS 19 in the case of plans that require beneficiaries to be on the company's payroll at the time of retirement and for which the number of qualifying years of service is capped.

Previously, benefit was attributed over the entire period of service, from the time when the employee first joined the company up to the date of retirement, based on a projected benefit obligation on the retirement date. From now on, it will be attributed over the last years of service taken into account to determine the qualifying period.

The impact on the Group of first-time application of this interpretation is not material.

Amendments to IAS 39 – IFRS 4 – IFRS 7 – IFRS 9 – IFRS 16 – Interest Rate Benchmark Reform (Phase 2)

The Phase 2 amendments address issues that might affect financial reporting as a result of interest rate benchmark, including the effects of changes to contractual cash flows or hedging relationships arising from the replacement of an interest rate benchmark with an alternative benchmark rate (replacement issues).

No hedging relationships have been identified by the Group that are affected by the replacement of an interest rate benchmark. The impact of applying new interest rates to leases, loans, borrowings and derivative instruments is not material.

Amendment to IFRS 16 – Covid-19 Related Rent Concessions Beyond June 30, 2021

This new amendment, adopted by the European Union on August 30, 2021, extends the provisions of the original amendment concerning Covid-19-related rent concessions by one year to June 30, 2022. The concession may consist of rent relief or a reduction in the rent originally due. Lessees may choose to account for the rent concession as variable lease payments recognized directly in the income statement of the period(s) in which the event or condition that triggers the reduced payment occurs, rather than treating it as a lease modification with the resulting obligation to remeasure the lease liability based on the revised consideration using a revised discount rate.

This amendment had no material impact on the Group's consolidated financial statements.

IFRIC decision on the cost of implementing SaaS arrangements

The IFRS IC has clarified how configuration and customization costs should be accounted for in a Software as a Service (SaaS) arrangement in which the entity only has a right to receive access to the software and does not control said software. The interpretation specifies that if the software concerned is not a resource controlled by the entity, then the configuration and customization activities do not themselves create a resource controlled by the entity. Consequently, they do not lead to the recognition of an intangible asset and should be accounted for as an expense.

The decision also specifies that the fee should be recognized over the term of the right-of-access contract when (i) the software configuration and customization work is performed by the software hosting service provider or by a third-party provider acting as a subcontractor of the hosting service provider, and (ii) this work constitutes a separate service (by analogy with IFRS 15) from the software access service. In all other cases, the fee should be recognized immediately as an expense when the configuration and customization work is performed.

The Group has reviewed substantially all of its SaaS contracts; in most cases, these contracts have not involved any configuration or customization work. Consequently, the IFRS IC's decision does not have a material impact on the Group's consolidated financial statements.

2.4 New standards, amendments to existing standards and interpretations effective from January 1, 2022 in the European Union that have not been early-adopted by the Group

The following amendments to IFRSs which were not applicable at December 31, 2021 are not expected to have a material impact on the Group at their application date.

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 – Update of 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.

2.5 Standards, amendments to existing standards and interpretations issued by the International Accounting Standards Board (IASB) but not yet adopted by the European Union

As of the date when the Group's consolidated financial statements were approved for publication, the Group had not adopted the following new standards or amendments to existing standards that had been published but were not effective as of January 1, 2021:

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

This amendment clarifies the principles applied to classify liabilities as current or non-current.

Amendment to IAS 1 – Disclosure of Accounting Policies

This amendment requires entities to disclose their material accounting policy information rather than their significant accounting policies. Accounting policy information is material if users of an entity's financial statements would need it to understand other material information in the financial statements.

The amendment is effective for annual periods beginning on or after January 1, 2023.

Amendment to IAS 8 – Definition of Accounting Estimates

This amendment is designed to help entities distinguish between changes in accounting policies and changes 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 is effective for annual periods beginning on or after January 1, 2023.

Amendments 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.

The impact on the consolidated financial statements of applying this amendment is currently being assessed.

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.

2.6 Climate risk

The consequences of the Group's 2030 energy transition goals announced in April 2021 have been taken into account for the preparation of the annual financial statements.

The Group has decided to 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 €70 million. An electrification program concerning the presses used to vulcanize tires has been launched to optimize the Group's energy use. The sums to be invested in the program over the next five years are estimated at €80 million. Beyond that, the speed of press electrification will depend on the first phase's impact on energy performance. This capital expenditure has been taken into account in the cash flow forecasts used for assets impairment tests.

The long-term consequences of climate risk 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. They are taken into account in the analyses resulting from the Group's risk mapping. For CGUs or groups of CGUs to which goodwill is allocated, a simulated impairment test has been performed based on an extremely pessimistic scenario. The simulation consisted of determining projected future cash flows over a period of just twenty years and setting the projected growth rate to zero beyond the fifth year. On this basis, an impairment loss of approximately €180 million would be recognized.

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, 2021 are disclosed in note 13.2.4.

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

2.7 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.

2.7.1 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 Group Executive Committee. 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".

2.7.2 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".

2.7.3 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;
- tax planning strategies;
- opportunities for internal reorganizations 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. The main ongoing tax audits are described in note 11 "Income taxes".

2.7.4 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.

2.7.5 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.

2.8 Restatement of comparative financial information

The costs of the Euromaster distribution network's support functions have been reclassified from "Sales and marketing expenses" to "General and administrative expenses" in the consolidated income statement, in order to better reflect the specific nature of the distribution business.

For comparison purposes, an amount of €127 million has been reclassified from "Sales and marketing expenses" to "General and administrative expenses" in the consolidated income statement for 2020.

The effects of the restatement are presented in the table below:

(in € millions)	2020 as reported	Reclassifications	2020 restated
Sales	20,469	-	20,469
Cost of sales	(14,754)	-	(14,754)
Gross income	**5,715**	**-**	**5,715**
Sales and marketing expenses	(1,197)	127	(1,070)
Research and development expenses	(646)	-	(646)
General and administrative expenses	(1,867)	(127)	(1,994)
Segment other income and expenses	(127)	-	(127)
Segment operating income	**1,878**	**-**	**1,878**
Other operating income and expenses	(475)	-	(475)
Operating income	**1,403**	**-**	**1,403**
Cost of net debt	(242)	-	(242)
Other financial income and expenses	(14)	-	(14)
Net interest on employee benefit obligations	(56)	-	(56)
Share of profit/(loss) from equity-accounted companies	(112)		(112)
Income before taxes	**979**	**-**	**979**
Income tax	(354)	-	(354)
NET INCOME	**625**	**-**	**625**
▶ Attributable to the shareholders of the Company	632	-	632
▶ Attributable to the non-controlling interests	(7)	-	(7)
EARNINGS PER SHARE *(in €)*			
▶ Basic	3.52	-	3.52
▶ Diluted	3.51	-	3.51

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 accounted for using the equity method and are initially recognized at cost. 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.

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):	**2021**	**2020**	**2021**	**2020**
US dollar (USD)	1.132	1.228	1.184	1.141
Canadian dollar (CAD)	1.449	1.571	1.483	1.529
Mexican peso (MXN)	23.309	24.413	23.993	24.373
Brazilian real (BRL)	6.454	6.400	6.370	5.815
Pound sterling (GBP)	0.840	0.907	0.860	0.889
Chinese yuan (CNY)	7.206	8.020	7.636	7.873
Indian rupee (INR)	84.394	90.038	87.477	84.530
Thai baht (THB)	37.754	36.867	37.791	35.697

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 major part 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 rights-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 in 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

Employee stock option plans

Benefits related to stock options, which may be granted to some Group employees, are measured at the grant date using the binomial option pricing model.

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

The binomial model is based on the spot price for Company shares, the exercise price, the historical volatility of the shares (over a period equal to the expected lifetime of the option), a risk-free interest rate (zero coupon government bonds with a maturity equal to the expected lifetime of the option), and a dividend stream based on market expectations.

Benefits are spread over the period during which the services are rendered. They are recognized in "Segment other income and expenses".

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 fair value of the shares acquired (after deducting the five-year lock-up cost) and the price paid by the employees, multiplied by the number of shares acquired.

The benefit granted to the employees is immediately expensed 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 2021

4.1.1 Solesis, Inc.

On May 28, 2021, Michelin and Altaris announced the signing of a partnership agreement whereby Altaris would become a shareholder of Solesis, a Michelin subsidiary specializing in biomaterials for the healthcare industry. The partnership agreement has three components:

- acquisition of a 51% stake in Solesis by Altaris;
- setup of a governance system that will enable the two Solesis shareholders to support the business' development and expansion;
- a research and development partnership between Michelin and Solesis to continue co-developing biopolymers focused on the intersection of polymer science and biology.

As a result of this agreement, the Solesis subsidiaries that were previously fully consolidated by Michelin have been accounted for by the equity method with effect from May 28, 2021.

The consideration received for the sale of 51% of Solesis' net assets, based on an enterprise value of $475 million, is presented as follows in the transaction date consolidated statement of financial position:

- 49% retained interest recognized under "Investments in equity-accounted companies" for an amount of €146 million. The fair value measurement of the assets acquired and liabilities assumed by the joint venture is currently in progress and will be completed within 12 months of the date of signature of the partnership agreement-; and
- preferred non-voting shares, considered in substance as a financial asset measured at fair value through profit or loss, presented under "Non-current financial assets and other non-current assets" for €229 million.

The €114 million gain realized on the disposal is presented under "Other operating income and expenses" for 2021 (note 9).

The transaction has had no effect on the Group's cash position as the cash contributed by Altaris has been retained in the accounts of the Solesis joint venture to fund its growth. For this reason, the transaction qualifies as a tax-exempt reorganization for taxes payable and under US tax rules. However, it led to the remeasurement of Solesis' carrying amount in the Group's financial statements, creating a taxable temporary difference. The corresponding deferred tax liability recognized by the Group at December 31, 2021 amounted to €78 million.

The effects of the transaction on the transaction-date consolidated statement of financial position are as follows:

(in € millions)	**At the transaction date**
Investments in equity-accounted companies	146
Other non-current financial assets and other non-current assets	229
Net assets sold	(261)
DISPOSAL GAIN	**114**

Details of the net assets sold are presented in the table below:

(in € millions)	**Net assets sold**
Goodwill	(53)
Intangible assets	(200)
Property, plant and equipment	(42)
Non-current assets	**(295)**
Inventories	(11)
Trade receivables	(14)
Cash and cash equivalents	(1)
Current assets	**(26)**
TOTAL ASSETS	**(321)**
Net assets	**(261)**
Non-current financial liabilities	-
Non-current lease liabilities	(3)
Deferred tax liabilities	(48)
Non-current liabilities	**(51)**
Trade payables	(3)
Provisions and other current liabilities	(6)
Current liabilities	**(9)**
TOTAL EQUITY AND LIABILITIES	**(321)**

Additional information about the financial position of Solesis is provided in note 17.3.

4.1.2 Allopneus

On July 30, 2021, the Group signed an agreement to acquire an additional 60% of Allopneus in order to acquire exclusive control of the company. Allopneus is an online distributor of tires, rims and accessories to both retail and trade customers.

After obtaining antitrust clearance, the transaction was completed on December 30, 2021.

The net cash outflow generated by the acquisition of 60% of Allopneus shares in 2021 was as follows:

(in € millions)	**At acquisition date**
Fair value of consideration transferred	(47)
Net cash acquired	3
NET CASH OUTFLOW FROM THE ACQUISITION	**(44)**

Identification and measurement at their acquisition-date fair value of the identifiable assets acquired and liabilities assumed will begin in the first half of 2022 and will be completed within 12 months from the acquisition date, i.e., no later than December 30, 2022.

The price paid for the acquired 60% interest valued the company's previously held 40% interest at €31 million. Remeasurement of the 40% interest on this basis led to the recognition of a €13 million capital gain, recorded in the line "Share of profit/(loss) from equity-accounted entities".

The provisional purchase price allocation resulted in the recognition of goodwill in the amount of €65 million at December 31, 2021, as shown in the following table:

(in € millions)	At the acquisition date
Investment in an associate at market value (40%)	31
Fair value of consideration transferred (60%)	47
Less: consolidated net assets (100%)	(13)
PROVISIONAL GOODWILL	**65**

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, Off-the-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.

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:

	2021				2020			
(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	11,998	6,233	5,564	**23,795**	10,103	5,373	4,993	**20,469**
Segment operating income	1,643	599	724	**2,966**	839	302	737	**1,878**
As a percentage of sales	*13.7%*	*9.6%*	*13.0%*	***12.5%***	*8.3%*	5.6%	14.8%	***9.2%***
SEGMENT ASSETS								
Goodwill, PP&E, intangible assets and right-of-use assets	7,625	3,636	5,101	**16,362**	7,294	3,680	5,046	**16,020**
Finished product inventories	1,408	948	837	**3,193**	1,042	752	688	**2,482**
Trade receivables	1,605	1,130	841	**3,576**	1,359	984	675	**3,018**
Segment assets	**10,638**	**5,714**	**6,779**	**23,131**	**9,695**	**5,416**	**6,409**	**21,520**
Other information								
Capital expenditure	889	429	387	**1,705**	628	339	254	**1,221**

The Group derives 95.6% of its revenue (2020: 95.3%) from tire sales and sales related to the supply of tires to the original equipment or replacement market, plus sales of Fenner conveyor belts. These sales totaled €22,744 million in 2021 (2020: €19,497 million). Sales are recognized at the exact point in time when control of the goods is transferred to the customer.

Revenue deriving from commercial fleet tire management contracts and from contracts for the supply of telematics services, each of which being a performance obligation satisfied over time, was recognized in an amount of €621 million in 2021 (2020: €560 million), representing 2.6% of total sales (2020: 2.7%).

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

(in € millions)	December 31, 2021	December 31, 2020
Total segment assets	**23,131**	**21,520**
Non-current financial assets and other non-current assets	1,404	865
Investments in equity-accounted companies	1,103	941
Deferred tax assets	751	729
Other net inventories (raw materials and supplies, work in progress)	2,079	1,477
Current financial assets	713	429
Other current assets	1,038	929
Cash and cash equivalents	4,482	4,747
TOTAL GROUP ASSETS	**34,701**	**31,637**

Information by region breaks down as follows:

	2021				2020			
(in € millions)	Europe	North America	Other	Total	Europe	North America	Other	Total
Sales	9,014	8,389	6,392	**23,795**	7,640	7,102	5,727	**20,469**
Goodwill, PP&E, intangible assets and right-of-use assets	6,723	5,042	4,597	**16,362**	6,572	4,997	4,451	**16,020**
Capital expenditure	875	464	366	**1,705**	561	284	376	**1,221**

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 €2,066 million in 2021 (2020: €1,762 million). Goodwill, intangible assets and PP&E located in France amounted to €2,545 million in 2021 (2020: €2,418 million).

Approximately 80% of North American sales were generated in the United States in 2020 and 2021.

No single external customer accounted for 10% or more of the Group's sales in 2021 and 2020.

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)	2021	2020
Raw materials and consumables used and changes in finished product inventories	(8,212)	(6,923)
Employee benefit costs	(6,430)	(5,970)
Transportation of goods	(1,685)	(1,095)
Depreciation and amortization[(1)]	(1,734)	(1,753)
Other expenses	(2,768)	(2,850)
EXPENSES BY NATURE	**(20,829)**	**(18,591)**

(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)	2021	2020
Wages and salaries	(5,140)	(4,743)
Payroll taxes	(957)	(893)
Defined benefit plan costs (note 27.1)	(109)	(129)
Defined contribution plan costs (note 27.2)	(218)	(217)
Share-based payments – current service cost (note 25)	(21)	(14)
EMPLOYEE BENEFIT COSTS [(1)]	**(6,445)**	**(5,996)**

(1) Of which €6,430 million is recognized in "Segment operating income" (note 6) and €15 million in "Other operating income and expenses" (note 9).

The average number of employees on payroll in 2021 was 124,037 (2020: 124,533).

NOTE 8 SEGMENT OTHER INCOME AND EXPENSES

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

(in € millions)	2021	2020
Employee share ownership plan cost	-	(14)
Share-based payments – current service cost (note 28.2)	(21)	(17)
Covid-19 health and safety costs	(26)	(96)
Other operating income/(expenses)	(20)	-
SEGMENT OTHER INCOME AND EXPENSES	**(67)**	**(127)**

NOTE 9 OTHER OPERATING INCOME AND EXPENSES

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

(in € millions)	2021	2020
Amortization of acquired trademarks and customer relationships (note 9.1)	(78)	(87)
Reorganization and adaptation of activities (note 9.2)	(86)	(59)
Impairment of non-current assets (note 9.3)	(116)	(285)
Employee benefit obligations (note 9.4)	(15)	(26)
Other (note 9.5)	106	(18)
OTHER OPERATING INCOME AND EXPENSES	**(189)**	**(475)**

9.1 Amortization of acquired trademarks and customer relationships

Amortization of intangible assets recognized in the course of a business combination amounts to €78 million in 2021 (2020: €87 million):

- €25 million related to amortization of brands or trademarks (2020: €26 million);
- €53 million to amortization of customer relationships (2020: €61 million).

9.2 Reorganizations and adaptation of activities

9.2.1 Year ended December 31, 2021

As part of the initiatives to improve the competitiveness of its manufacturing and office-based activities, on January 6, 2021 the Group announced the launch of a reinforced simplification and competitiveness plan to significantly improve the agility and overall performance of its operations in France. Pursuant to the framework agreement, a mutually agreed severance package (Collective Settlement Agreement or "RCC") will be negotiated in three phases between 2021 and 2023 to implement voluntary early retirement and voluntary outplacement measures.

The first phase signed in June led to the recognition of an €89 million provision for the implementation of support measures (note 29), and reversal of the €86 million provision for pension and other defined benefit obligations recognized in prior periods for the employees concerned (notes 27.1.1 and 27.1.2).

A provision of €100 million has been recognized for the implementation of support measures in the second phase (note 29) and an €82 million provision for pension and other defined benefit obligations has been reversed (notes 27.1.1 and 27.1.2).

The net expense covered by provisions booked in 2021 for the first two phases of the RCC agreement amounts to €21 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 Germany and Italy.

9.2.2 Year ended December 31, 2020

Reorganization expense of €59 million recorded during the year included the cost of reorganization plans that were individually not material and adjustments to existing provisions.

9.3 Impairment of non-current assets

9.3.1 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.

9.3.2 Year ended December 31, 2020

The Group has a plant in India that primarily manufactures premium truck tires, sold for the most part in the domestic market. In light of this market's growing structural difficulties, the Group had revised its growth projections for the premium segment. Various initiatives to improve the plant's margins failed to deliver the hoped-for results and the carrying amount of this industrial asset was therefore written down in full, representing an impairment loss of €164 million.

In addition, impairment losses were recorded on the intangible assets of the Tablet online hotel reservation agency for €37 million and the intangible assets of Nextraq for €19 million.

9.4 Employee benefit obligations

No material events occurred in 2021 or 2020.

9.5 Other

9.5.1 Year ended December 31, 2021

The gain resulting from the sale of part of Solesis (note 4.1.1) is recognized under "Other" for €114 million.

9.5.2 Year ended December 31, 2020

No material events occurred in 2020.

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)	2021	2020
Interest expense	(176)	(199)
Interest expense on lease liabilities	(30)	(38)
Interest income	(11)	-
Interest rate derivatives	32	(7)
Fees on credit lines	(9)	(5)
Capitalized borrowing costs	2	7
COST OF NET DEBT	**(192)**	**(242)**
Net income from financial assets (other than cash and cash equivalents and cash management financial assets)	7	18
Currency remeasurement (including currency derivatives)	(13)	(19)
Other	2	(13)
OTHER FINANCIAL INCOME AND EXPENSES	**(4)**	**(14)**

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 €32 million (2020: decrease of €7 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

11.1 Income tax expense

(in € millions)	2021	2020
Current tax expense (note 18.2)	(629)	(351)
Deferred tax benefit/(expense) (note 18.1)	3	(3)
INCOME TAX	**(626)**	**(354)**

Current tax includes €15 million of withholding tax on royalties and on retained earnings distributed between Group companies (2020: €37 million).

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

(in € millions)	2021	2020
Income before taxes	**2,471**	**979**
Tax calculated using domestic tax rates applicable to income in the respective countries	(537)	(229)
Tax effect of:		
▶ untaxed transactions	(1)	(24)
▶ deferred tax assets not recognized during the period	(26)	(115)
▶ net change in unrecognized deferred tax assets	46	41
▶ changes in tax rates	3	14
▶ taxes with no tax base (tax credits, withholding tax, etc.)	(33)	(34)
▶ other items	(78)	(7)
INCOME TAX	**(626)**	**(354)**

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.

The difference between the Group's effective and theoretical tax rates is mainly due to the deferred tax recognized on the Solesis transaction for €78 million, which is included in "Other items". Other differences concern unrecognized deferred tax assets, withholding taxes, tax credits and other taxes not assessed 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.

11.2 Tax audits in Germany

Following a tax audit covering the years 2005 to 2009, a German subsidiary was notified in 2018 of a €382 million reassessment of its corporate income tax base determined by estimating its taxable income for the audited period by reference to the Group's average profit margin. The reassessment includes an amount of €298 million corresponding to the effects on the subsidiary of the Group's transfer pricing policy, which was challenged by the tax administration.

On July 17, 2018, a procedure was initiated with the tax authorities to suspend payment of the tax deficiency and late interest ; as a result of this application, the payments made were not material. In addition, an appeal was lodged with a higher authority challenging the methodology used by the tax authorities and based on the Group's average profit margin.

On December 16, 2019, the Group filed a Mutual Agreement Procedure (MAP) under the EU Arbitration Convention and the respective Double Tax Treaties, for the total reassessment amounting to €382 million.

In November 2020, the reassessment for the period 2005-2009 was revised downwards to €96 million from €382 million previously.

In 2021, while maintening its appeal concerning the 2005-2009 reassessments, the Group decided to settle the tax claimed on the revised €96 million reassessment in order to avoid the accrual of further late interest.

In addition, a second tax audit covering the years 2010 to 2014 began in 2016.

In 2021, an agreement was reached with the German tax authorities on the main proposed reassessments. The Group has accepted a €31 million reassessment of the tax base for the period 2005 to 2009 and a €58 million reassessment of the tax base for the period 2010 to 2014. The reassessments are covered by a provision at December 31, 2021.

However, the German subsidiary continues to challenge certain reassessments proposed by the local tax authorities that do not relate to transfer pricing policy. The tax base reassessments in these cases amount to €45 million in tax base and are covered by a provision at December 31, 2021.

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, 2021, the Company had only one type of dilutive potential shares: performance shares (note 28.2 "Performance share plans"). The last stock option plan expired on June 30, 2021, and no stock options were outstanding at the end of 2021.

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 2021 reporting period.

	2021	2020
Net income *(in € millions)*, excluding non-controlling interests	1,844	632
▸ Less, estimated General Partners' profit shares	(5)	(4)
Net income attributable to the shareholders of the Company used to calculate basic earnings per share	**1,839**	**628**
Weighted average number of shares outstanding *(thousands of shares)* **used to calculate basic earnings per share**	**178,362**	**178,310**
▸ Plus, adjustment for stock option plans	-	12
▸ Plus, adjustment for performance shares	1,218	848
Weighted average number of shares used to calculate diluted earnings per share	**179,580**	**179,170**
EARNINGS PER SHARE *(in €)*		
▸ Basic	10.31	3.52
▸ Diluted	10.24	3.51

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, 2020	**2,448**	**4,097**	**6,545**
Translation adjustments	(242)	(201)	(443)
Additions (including new emission allowances: €19 million)	-	200	200
Disposals	-	(55)	(55)
Change in scope of consolidation	19	-	19
Transfers and other	-	(23)	(23)
Gross carrying amounts at December 31, 2020	**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**
Amortization and impairment at January 1, 2020	**(60)**	**(1,817)**	**(1,877)**
Translation adjustments	5	77	82
Amortization	-	(265)	(265)
Net impairment	(33)	(47)	(80)
Disposals	-	35	35
Change in scope of consolidation	-	-	-
Transfers and other	(1)	(21)	(22)
Amortization and impairment at December 31, 2020	**(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)**
NET CARRYING AMOUNTS AT DECEMBER 31, 2021	**2,286**	**1,811**	**4,097**
Net carrying amounts at December 31, 2020	**2,136**	**1,980**	**4,116**

13.1 Goodwill

At December 31, 2021, goodwill allocated to the CGUs or groups of CGUs is as follows:

(in € millions)	December 31, 2021	December 31, 2020
Passenger car tires – global brands CGU group	367	358
Passenger car tires – regional brands CGU	162	150
Light truck and Truck tires CGU group	587	573
Mining CGU group	260	241
Two-wheel tires CGU	18	18
Off-the-road tires CGU	690	637
High-Tech Materials CGU group	137	159
Allopneus (note 4.1.2)	65	-
GOODWILL	**2,286**	**2,136**

To take into account the uncertainty surrounding the pandemic's overall impact on global economic activity (duration and severity of the global recession), the Group considered a scenario that modeled the projected change in global gross domestic product (GDP). The resulting future cash flow estimates were used to calculate the value in use of the different CGUs and groups of CGUs.

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 slight increase in interest rates being compensated by the volatility in market premiums over the period, the weighted average costs of capital (WACC) used for the tests at December 31, 2021 were stable compared with December 31, 2020.

After-tax discount rates and perpetual growth rates used in 2021 for terminal value calculations are presented in the table below:

(%)	WACC	Perpetual growth rate
Passenger car tires – global brands CGU group	7.8	1.5
Passenger car tires – regional brands CGU	7.6	1.4
Light truck and Truck tires CGU group	8.0	1.1
Mining CGU group	9.6	1.5
Two-wheel tires CGU	7.9	1.4
Off-the-road tires CGU	7.6	1.8
High-Tech Materials CGU group	8.6	2.5

A 50-basis point increase in WACC combined with a 100-basis point decrease in the perpetual growth rate applied to the groups of CGUs would not lead to the recognition of any impairment.

Projected future cash flows used for impairment testing of fixed assets include best estimates of investments to be made to fulfill the Group's 2030 energy transition ambitions (see note 2.6 Climate risk).

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 the lease payments determined previously, before IFRS 16 was applied. This pragmatic approach does not preclude other approaches to this subject that may be implemented in the future.

13.2 Intangible assets

In 2021, additions to intangible assets, amounted to €240 million (2020: €200 million), breaking down as follows:

- software: €192 million;
- CO_2 emission allowances: €30 million;
- other: €18 million.

13.2.1 Software

The net carrying amount of software at December 31, 2021 was €671 million (2020: €645 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, 2021, the net carrying amount of brands and trademarks in the consolidated statement of financial position was €324 million (2020: €363 million), of which €7 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, 2021, the net carrying amount of customer relationships in the consolidated statement of financial position was €680 million (2020: €826 million). These amounts correspond primarily to the value of customer lists recognized in connection with business combinations (mainly Fenner and Camso). The sharp decrease for the year is mainly due to the Solesis transaction (note 4.1.1).

13.2.4 CO_2 emission allowances

Emission allowances at December 31, 2021 totaled 2.3 million tons (2020: 2.7 million tons) and were carried in the consolidated statement of financial position for an amount of €59 million (2020: €44 million). The liability corresponding to actual emissions in 2021 amounts to 0.7 million tons (2020: 0.7 million tons) representing a value of €22 million (2020: €13 million). It will be offset by the delivery of the acquired allowances.

13.2.5 Development costs

In 2020 and 2021, no development costs were capitalized since 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

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, 2020	**7,007**	**21,097**	**1,543**	**29,647**
Translation adjustments	(360)	(1,181)	(84)	(1,625)
Acquisitions	135	817	89	1,041
Disposals	(106)	(501)	(70)	(677)
Change in scope of consolidation	(2)	31	2	31
Transfers and other	32	(26)	(14)	(8)
Gross carrying amounts at December 31, 2020	**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**
Depreciation and impairment at January 1, 2020	**(3,122)**	**(13,426)**	**(1,057)**	**(17,605)**
Translation adjustments	150	728	57	935
Depreciation	(191)	(1,074)	(81)	(1,346)
Net impairment	(75)	(106)	(12)	(193)
Disposals	90	477	61	628
Change in scope of consolidation	6	(8)	(1)	(3)
Transfers and other	(2)	1	(3)	(4)
Depreciation and impairment at December 31, 2020	**(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)**
NET CARRYING AMOUNTS AT DECEMBER 31, 2021	**3,660**	**7,141**	**430**	**11,231**
Net carrying amounts at December 31, 2020	**3,562**	**6,829**	**430**	**10,821**

PP&E in progress amount to €1,611 million (2020: €1,328 million).

Accumulated impairment losses included in total "Depreciation and impairment" at December 31, 2021 amount to €465 million (2020: €449 million).

Borrowing costs capitalized in 2021 in PP&E amounted to €2 million (2020: €7 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, 2020	**1,097**	**100**	**235**	**1,432**
Translation adjustments	(54)	(7)	(12)	(73)
New leases	132	42	36	210
Disposals	(28)	(12)	(14)	(54)
Change in scope of consolidation	2	-	-	2
Transfers and other	28	(4)	29	53
Gross carrying amounts at December 31, 2020	**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**
Depreciation and impairment at January 1, 2020	**(208)**	**(26)**	**(71)**	**(305)**
Translation adjustments	11	2	3	16
Depreciation	(146)	(36)	(47)	(229)
Net impairment	(11)	-	-	(11)
Disposals	28	12	14	54
Change in scope of consolidation	-	-	-	-
Transfers and other	(18)	8	(2)	(12)
Depreciation and impairment at December 31, 2020	**(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)**
NET CARRYING AMOUNTS AT DECEMBER 31, 2021	**802**	**71**	**161**	**1,034**
Net carrying amounts at December 31, 2020	**833**	**79**	**171**	**1,083**

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 €28 million in 2021 (2020: €33 million);
- leases of low-value assets, representing an expense of €42 million for the year (2020: €40 million);
- variable lease payments not taken into account to determine the lease liability, representing an expense of €16 million (2020: €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, 2021	December 31, 2020
Equity investments (note 15.1)	279	229
Loans and deposits (note 15.2)	387	294
Solesis preferred shares	247	-
Derivative instruments (note 16.1)	125	101
Pension plan surpluses (note 27.1)	332	211
Other	34	30
NON-CURRENT FINANCIAL ASSETS AND OTHER NON-CURRENT ASSETS	**1,404**	**865**

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)	2021	2020
At January 1	**229**	**237**
Translation adjustments	6	(5)
Acquisitions	25	14
Disposals	(2)	(45)
Change in scope of consolidation	(10)	-
Fair value changes	31	28
AT DECEMBER 31	**279**	**229**

15.2 Loans and deposits

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

(in € millions)	December 31, 2021	December 31, 2020
Gross loans and deposits	434	335
Impairment	(47)	(41)
TOTAL	**387**	**294**

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

The €93 million net increase in loans and deposits reflects:

- the €184 million (£158 million) deposited in an escrow account to fund pension obligations in the United Kingdom (note 27.1.1). This amount is pledged to the pension plans and is therefore not freely available to the Group;
- partly offset by a partial early repayment of $100 million (€88 million) received on the loan to TBC. This loan was made at the inception of the joint venture for an initial amount of $200 million. Michelin's partner in the joint venture made an equivalent loan.

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, 2021	December 31, 2020
Derivatives qualifying as fair value hedges	-	-
Derivatives qualifying as cash flow hedges		
▶ Currency derivatives	83	45
▶ Interest-rate derivatives	-	-
▶ Other derivatives	-	-
Derivatives not qualifying for hedge accounting		
▶ Currency derivatives	16	38
▶ Interest-rate derivatives	2	-
▶ Other derivatives[1]	24	18
Non-current derivative instruments (note 15)	**125**	**101**
Derivatives qualifying as fair value hedges	-	-
Derivatives qualifying as cash flow hedges		
▶ Currency derivatives	49	2
▶ Interest-rate derivatives	-	-
▶ Other derivatives	-	-
Derivatives not qualifying for hedge accounting		
▶ Currency derivatives	21	49
▶ Interest-rate derivatives	-	-
▶ Other derivatives[1]	27	1
Current derivative instruments (note 21)	**97**	**52**
TOTAL ASSETS	**222**	**153**

(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, 2021 amounted to €74 million (2020: €22 million).

16.2 Derivatives recognized in liabilities

(in € millions)	December 31, 2021	December 31, 2020
Derivatives qualifying as fair value hedges	-	-
Derivatives qualifying as cash flow hedges		
▶ Currency derivatives	-	21
▶ Interest-rate derivatives	-	-
▶ Other derivatives	-	-
Derivatives not qualifying for hedge accounting		
▶ Currency derivatives	56	23
▶ Interest-rate derivatives	3	5
▶ Other derivatives(1)	24	18
Non-current derivative instruments (note 26)	**83**	**67**
Derivatives qualifying as fair value hedges	-	-
Derivatives qualifying as cash flow hedges		
▶ Currency derivatives	26	1
▶ Interest-rate derivatives	-	-
▶ Other derivatives	-	-
Derivatives not qualifying for hedge accounting		
▶ Currency derivatives	49	49
▶ Interest-rate derivatives	-	-
▶ Other derivatives(1)	27	-
Current derivative instruments (note 26)	**102**	**50**
TOTAL LIABILITIES	**185**	**117**

(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, 2021 amounted to €100 million (2020: €49 million).

16.3 Contractual amounts of derivatives

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

	December 31, 2021			December 31, 2020		
(in € millions)	Current	Non-current	Total	Current	Non-current	Total
Currency derivatives	5,253	1,459	**6,712**	3,799	1,306	**5,105**
Interest rate derivatives	-	189	**189**	81	81	**162**
Other	1,054	1,060	**2,114**	-	1,954	**1,954**
Derivatives not qualifying for hedge accounting	**6,307**	**2,708**	**9,015**	**3,880**	**3,341**	**7,221**
Interest rate derivatives	-	-	**-**	-	-	**-**
Derivatives qualifying as fair value hedges	**-**	**-**	**-**	**-**	**-**	**-**
Currency derivatives	576	435	**1,011**	57	981	**1,038**
Interest rate derivatives	-	-	**-**	-	-	**-**
Other	11	2	**13**	4	1	**5**
Derivatives qualifying as cash flow hedges	**587**	**437**	**1,024**	**61**	**982**	**1,043**
TOTAL	**6,894**	**3,145**	**10,039**	**3,941**	**4,323**	**8,264**

The "Other" derivatives not qualifying for hedge accounting include options related to convertible bonds in USD (note 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	941	107	11	96	Cost of net debt/Other financial income and expense
Commodity price risk – forward purchase contracts	13	-	(1)	1	Operating income
Interest rate swaps	-	-	(16)	(2)	Cost of net debt
Interest component of cross currency swaps	41	(1)	-	-	Cost of net debt
Forward foreign exchange contracts on forecast sales	18	-	1	(2)	Operating income
Hedges of currency risk on raw materials purchases	11	-	-	2	Operating income
Current and non-current hedging instruments	**1,024**	**106**	**(5)**	**95**	

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 €16 million and hedges of currency risk on dollar-denominated convertible bonds for €11 million (note 26.1 "Bonds and commercial paper"). The gains and losses are transferred to the income statement when the interest on the hedged bonds 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, 2020	**166**	**921**	**1,087**
Share of profit/(loss) from equity-accounted companies	(12)	(61)	(73)
Impairment	(38)	-	(38)
Dividends	(2)	(4)	(6)
Changes in scope of consolidation/capital increases	2	28	30
Translation adjustments	(1)	(57)	(58)
Other	(5)	4	(1)
At December 31, 2020	**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**

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

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.

The effect of changes in the scope of consolidation is mainly due to the first-time application of the equity method to Solesis in the first half (note 4.1.1) and the full consolidation of Allopneus from December 30, 2021 (note 4.1.2).

During the year, the Group recognized an impairment loss of €57 million on investments in companies active in the cultivation and production of natural rubber in Asia. Negotiations are underway with the various stakeholders to resolve the liquidity problems faced by these companies. If the negotiations are unsuccessful, these companies may be unable to meet their debt repayment obligations to external lenders in the first quarter of 2022 ($175 million at December 31, 2021). The Group has no commitment to assume all or part of these debts in the event of default, nor has it signed any cross-default clauses.

17.2 Joint venture with Sumitomo Corporation of Americas (TBC)

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

(in € millions)	December 31, 2021	December 31, 2020
Current assets	1,636	1,396
▸ *of which cash and cash equivalents*	*48*	*251*
Non-current assets	1,695	1,677
▸ *of which goodwill*	*133*	*127*
TOTAL ASSETS	**3,331**	**3,073**
Current liabilities	1,139	902
▸ *of which current financial liabilities*	*144*	*135*
Non-current liabilities	1,086	1,193
▸ *of which non-current financial liabilities*	*930*	*1,068*
Equity	1,106	978
TOTAL LIABILITIES AND EQUITY	**3,331**	**3,073**

(in € millions)	2021	2020 (1)
Sales	4,482	3,932
EBITDA	321	251
Interest income	(1)	2
Interest expense	(52)	(67)
Depreciation and amortization	(203)	(223)
Income tax	(22)	3
NET INCOME/(LOSS)	**43**	**(34)**

(1) In 2020, TBC's reporting deadline was aligned with the Group's standard reporting deadline. As a consequence, the "Share of profit/(loss) from equity-accounted companies" caption in the consolidated income statement for 2020 included 13 months of the Group's share in TBC's net income; the amount of the thirteenth month was not significant. For comparability purposes, the TBC figures for 2020 have been adjusted in the above chart to reflect a 12-months activity for both periods presented.

The equity-accounted share of TBC included in the Group's consolidated income statement (including elimination of downstream transactions) is a profit of €13 million (2020: loss of €13 million).

(in € millions)	December 31, 2021	December 31, 2020
Net assets (including goodwill)	**1,106**	**978**
Share of net assets (including goodwill)	553	489
Elimination of profit from downstream transactions (net of tax)	(31)	(19)
CARRYING AMOUNT OF NET INTEREST IN THE JOINT VENTURE	**522**	**470**

17.3 Joint venture with Altaris (Solesis)

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

(in € millions)	December 31, 2021
Current assets	286
▶ *of which cash and cash equivalents*	*253*
Non-current assets	400
▶ *of which provisional goodwill*	*351*
TOTAL ASSETS	**686**
Current liabilities	99
▶ *of which current financial liabilities*	*-*
Non-current liabilities	254
▶ *of which non-current financial liabilities*	*4*
▶ *of which preferred shares*	*250*
Equity	333
TOTAL LIABILITIES AND EQUITY	**686**

(in € millions)	2021 (7 months)
Sales	47
EBITDA	16
Interest expense	(3)
Depreciation and amortization	(6)
Income tax	-
NET INCOME	**7**

The equity-accounted share of Solesis included in the Group's consolidated income statement is a profit of € 3 million.

(in € millions)	December 31, 2021
Net assets (including goodwill)	**329**
CARRYING AMOUNT OF NET INTEREST IN THE JOINT VENTURE	**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)	2021	2020
Assets	2,970	2,277
Liabilities	2,061	1,488
Sales	3,142	3,045
Net income/(loss)	(3)	(150)

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)	2021	2020
INCOME STATEMENT		
Income for the sale of goods or supply of services	477	254
Expenses for the purchase of products or supply of services	(285)	(184)
STATEMENT OF FINANCIAL POSITION		
Financial liabilities	(5)	(6)
Trade payables	(25)	(7)
Financial assets	470	284
Accounts receivable	183	139

NOTE 18 TAXES

18.1 Deferred taxes

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

(in € millions)	December 31, 2021	December 31, 2020
Deferred tax assets	751	729
Deferred tax liabilities	(503)	(425)
NET DEFERRED TAX ASSET	**248**	**304**

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

(in € millions)	December 31, 2021	December 31, 2020
Employee benefit obligations	510	604
Inventories	110	102
Financial instruments	(32)	55
Provisions	17	44
Unused tax losses	154	132
Unused tax credits	-	1
Goodwill and intangible assets	(235)	(274)
Property, plant and equipment	(472)	(543)
Other	196	183
NET DEFERRED TAX ASSET	**248**	**304**

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 Covid-19 crisis did not have any material impact on the projections supporting the recognition of deferred tax assets.

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

(in € millions)	2021	2020
At January 1	**304**	**359**
Translation adjustments	(20)	1
Deferred tax benefit/(expense) (note 11)	3	(3)
Tax recognized in other comprehensive income	(87)	(40)
Changes in the scope of consolidation	49	(11)
Other	(1)	(2)
AT DECEMBER 31	**248**	**304**

In 2021 and 2020, 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.

The effect of changes in the scope of consolidation in 2021 mainly concerned the sale of part of Solesis for €48 million. (note 4.1.1).

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

(in € millions)	December 31, 2021	December 31, 2020
Post-employment benefits	229	312
Unconsolidated equity investments and other financial instruments	(30)	(26)
TOTAL DEFERRED TAX RECOGNIZED IN OTHER COMPREHENSIVE INCOME	**199**	**286**

In 2021, 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, 2021	December 31, 2020
Deductible temporary differences	**89**	**139**
Tax losses:		
▶ of which expiring in less than one year	7	8
▶ of which expiring in one to five years	25	43
▶ of which expiring in more than five years	17	26
▶ of which evergreen	471	301
Total tax losses	**520**	**378**
Tax credits	**10**	**5**
TOTAL UNRECOGNIZED DEFERRED TAX ASSETS	**619**	**522**

Unrecognized deferred tax assets in the amount of €619 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)	2021	2020
Taxes receivable (note 22)	324	317
Taxes payable (note 30)	(186)	(145)
Net total at January 1	**138**	**172**
Current tax expense (note 11)	(629)	(351)
Income tax paid	562	315
Changes in the scope of consolidation	1	-
Translation adjustments and other	(6)	2
Total changes	**(72)**	**(34)**
Taxes receivable (note 22)	304	324
Taxes payable (note 30)	(238)	(186)
NET TOTAL AT DECEMBER 31	**66**	**138**

NOTE 19 INVENTORIES

Inventories include the following:

(in € millions)	December 31, 2021	December 31, 2020
Raw materials and supplies	1,481	1,066
Work in progress	644	438
Finished products	3,267	2,541
Total gross inventory	**5,392**	**4,045**
Impairment of raw materials and supplies	(44)	(26)
Impairment of work in progress	(2)	(1)
Impairment of finished products	(74)	(59)
Impairment	**(120)**	**(86)**
NET INVENTORY	**5,272**	**3,959**

Changes in impairment losses on inventory are as follows:

(in € millions)	2021	2020
At January 1	**(86)**	**(100)**
Translation adjustments and other	(25)	7
Change in scope of consolidation	1	(1)
Impairment of inventories recognized as an expense in the period	(30)	(36)
Impairment reversals	20	44
AT DECEMBER 31	**(120)**	**(86)**

NOTE 20 TRADE RECEIVABLES

The carrying amount of trade receivables is analyzed in the table below:

(in € millions)	December 31, 2021	December 31, 2020
Gross trade receivables	3,678	3,126
Impairment	(102)	(108)
TRADE RECEIVABLES	**3,576**	**3,018**

All trade receivables are due within 12 months.

The following table presents an aging analysis of trade receivables at December 31, 2021:

(in € millions)	Gross	Impairment	Net
Trade receivables not yet due	**3,352**	**(14)**	**3,338**
Overdue			
▶ by less than three months	185	(2)	183
▶ between three and six months	23	(2)	21
▶ by more than six months	118	(84)	34
Overdue trade receivables	**326**	**(88)**	**238**
TRADE RECEIVABLES	**3,678**	**(102)**	**3,576**

Movements in impairment are analyzed in the table below:

(in € millions)	2021	2020
At January 1	**(108)**	**(97)**
Translation adjustments and other	(1)	5
Change in scope of consolidation	-	1
Impairment of trade receivables recognized as an expense in the period	(32)	(51)
Impairment reversals	39	34
AT DECEMBER 31	**(102)**	**(108)**

Impairment provisions of €17 million were reversed during the period following the write-off of the underlying receivables (2020: €18 million).

NOTE 21 CURRENT FINANCIAL ASSETS

The carrying amount of current financial assets is analyzed in the table below:

(in € millions)	December 31, 2021	December 31, 2020
Loans and deposits	181	92
Cash management financial assets (note 26)	435	285
Derivative instruments (note 16.1)	97	52
CURRENT FINANCIAL ASSETS	**713**	**429**

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 €74 million (2020: €22 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, 2021	December 31, 2020
Prepayments to suppliers	141	99
Income tax receivable	304	324
Other taxes receivable	317	240
Other	280	271
Impairment	(4)	(5)
OTHER CURRENT ASSETS	**1,038**	**929**

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, 2021	December 31, 2020
Money-market funds	3,372	3,516
Bank deposits subject to up to a three-month notice period	784	962
Cash at bank and in hand	326	269
CASH AND CASH EQUIVALENTS	**4,482**	**4,747**

The average effective interest rate on cash and cash equivalents was -0.29% in 2021 (2020: -0.10%). Cash and cash equivalents are mainly held in euros (2021: 93%, 2020: 93%).

Cash and cash equivalents include restricted cash of €103 million whose use is governed by prudential insurance regulations in Ireland (2020: €81 million).

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, 2020	**357**	**2,789**	**3,146**
Issuance of shares upon exercise of stock options and performance share rights	1	54	55
Cancellation of shares	(2)	(97)	(99)
Other	1	-	1
At December 31, 2020	**357**	**2,746**	**3,103**
Issuance of shares upon employee share plan and performance share rights	-	-	-
Cancellation of shares	-	-	-
Other	-	-	-
AT DECEMBER 31, 2021	**357**	**2,746**	**3,103**

Changes in outstanding shares are analyzed in the table below:

(number of shares)	Shares issued	Treasury shares	Shares outstanding
At January 1, 2020	**178,627,555**	**-**	**178,627,555**
Issuance of shares upon exercise of stock options and performance share rights	810,071	-	810,071
Share buybacks	-	(1,097,540)	(1,097,540)
Sales of treasury shares	-	-	-
Cancellation of shares	(1,097,540)	1,097,540	-
Other	-	-	-
At December 31, 2020	**178,340,086**	**-**	**178,340,086**
Issuance of shares upon exercise of stock options and performance share rights	190,364	-	190,364
Share buybacks	-	(8,032)	(8,032)
Sales of treasury shares	-	8,032	8,032
Cancellation of shares	-	-	-
Other	-	-	-
AT DECEMBER 31, 2021	**178,530,450**	**-**	**178,530,450**

The shares have a par value of €2 (unchanged from 2020). All outstanding shares are fully paid and registered. Shares held for more than four years have a double voting right.

The 2020 dividend paid to shareholders in 2021 was €2.30 per share (2019 dividend paid in 2020: €2.00 per share). The dividend was paid in full in cash for a net amount of €410 million (2020: €357 million).

The Managing Chairman will propose that shareholders approve the payment of a 2021 dividend in 2022 of €4.50 per share.

NOTE 25 RESERVES

(in € millions)	Translation reserve	Treasury shares	Other reserves	Retained earnings	Total
At January 1, 2020	**(287)**	**-**	**78**	**10,289**	**10,080**
Dividends and other appropriations	-	-	-	(368)	(368)
Share-based payments – current service cost (notes 7 and 8)	-	-	-	14	14
Share buybacks	-	(99)	-	-	(99)
Sale/cancellation of shares	-	99	-	-	99
Other	-	-	-	2	2
Transactions with the shareholders of the Company	**-**	**-**	**-**	**(352)**	**(352)**
Net income attributable to the shareholders of the Company	-	-	-	632	632
Post-employment benefits	-	-	-	*145*	*145*
Tax effect – Post-employment benefits	-	-	-	*(33)*	*(33)*
Equity instruments at fair value through OCI – changes in fair value	-	-	*28*	-	*28*
Tax effect – equity instruments at fair value through OCI	-	-	*(7)*	-	*(7)*
Other	-	-	*(3)*	*3*	-
Other comprehensive income that will not be reclassified to the income statement	-	-	18	115	133
Cash flow hedges – changes in fair value	-	-	*16*	-	*16*
Currency translation differences	*(977)*	-	-	-	*(977)*
Other	*(1)*	-	*2*	*(3)*	*(2)*
Other comprehensive income/(loss) that may be reclassified to the income statement	(978)	-	18	(3)	(963)
Total comprehensive income/(loss)	**(978)**	**-**	**36**	**744**	**(198)**
At December 31, 2020	**(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**

During 2021, the Group bought back 8,032 shares for €1 million and then sold them immediately.

In January 2020, an agreement was signed with an investment services provider under which the Company undertook to buy back up to €100 million worth of Michelin shares before November 19, 2020. A total of 1,097,540 shares were finally bought back under the program at an average price per share of €89.83, representing a total investment of €99 million. All of the shares bought back under the agreement were canceled before the end of 2020.

NOTE 26 FINANCIAL LIABILITIES

The carrying amount of financial liabilities is presented in the table below:

(in € millions)	December 31, 2021	December 31, 2020
Bonds	5,090	5,867
Loans from financial institutions and other	187	235
Derivative instruments	83	67
Non-current financial liabilities	**5,360**	**6,169**
Non-current lease liabilities	**731**	**801**
Bonds	823	77
Commercial paper	258	940
Loans from financial institutions and other	499	479
Derivative instruments	102	50
Current financial liabilities	**1,682**	**1,546**
Current lease liabilities	**229**	**222**
FINANCIAL LIABILITIES	**8,002**	**8,738**

Group net debt is analyzed in the table below:

(in € millions)	December 31, 2021	December 31, 2020
Financial liabilities	8,002	8,738
Derivatives recognized as assets (note 16.1)	(222)	(153)
Borrowing collaterals (note 32.3.2)	(74)	(22)
Cash management financial assets (note 21)	(435)	(285)
Cash and cash equivalents (note 23)	(4,482)	(4,747)
NET DEBT	**2,789**	**3,531**

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, 2021	December 31, 2020
Bonds	5,485	6,649
Loans from financial institutions and other	187	235
Lease liabilities	731	801
Derivative instruments	83	67
FAIR VALUE OF NON-CURRENT FINANCIAL LIABILITIES	**6,486**	**7,752**

Changes in financial liabilities and derivatives are detailed by flow in the table below:

(in € millions)	At January 1, 2021	Cash flows from financial liabilities	Non-cash movements		At December 31, 2021
			Conversions	Other	
Bonds, loans from financial institutions and other	6,102	(730)	20	(115)	5,277
Lease liabilities	801	-	29	(99)	731
Derivative instruments	67	1	-	15	83
Non-current financial liabilities	**6,970**	**(729)**	**49**	**(199)**	**6,091**
Bonds, loans from financial institutions and other	1,496	(90)	39	135	1,580
Lease liabilities	222	(244)	8	243	229
Derivative instruments	50	57	-	(5)	102
Current financial liabilities	**1,768**	**(277)**	**47**	**373**	**1,911**
TOTAL FINANCIAL LIABILITIES	**8,738**	**(1,006)**	**96**	**174**	**8,002**
Derivatives recognized as assets	(153)	(37)	-	(32)	(222)
Net impact on the consolidated statement of cash flows		**(1,043)**			

26.1 Bonds and commercial paper

The table below provides detailed information about the bonds and commercial paper issued by the Group:

(in € millions)	December 31, 2021 Current	December 31, 2021 Non-current	December 31, 2020 Current	December 31, 2020 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	-	495
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	-	743
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	-	992
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)	-	298	-	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)	-	745	-	744
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, 2021 of €169.89	-	506	-	455

	December 31, 2021		December 31, 2020	
(in € millions)	Current	Non-current	Current	Non-current
Private placement loan notes issued by Fenner Group Holdings Limited				
▶ nominal amount of $160 million				
▶ issued in 2011 and due in 2021 ($95 million) and 2023 ($65 million)				
▶ nominal and effective interest rate of 5.144% (2021) and 5.420% (2023)				
▶ repaid in 2021 (note 26.1.2)	-	-	77	53
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%	300	-	-	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 €133.34				
▶ repaid at maturity on January 10, 2022 (note 26.1.1)	523	-	-	479
Commercial paper repayable by Compagnie Générale des Établissements Michelin				-
▶ in USD, euro-equivalent nominal amount: €22 million (2020: €42 million)				
▶ effective interest rate of 0.30% at December 31, 2021				
▶ in €, nominal amount: €236 million (2020: €898 million)				
▶ effective interest rate of -0.57% at December 31, 2021	258	-	940	-
TOTAL	**1,081**	**5,090**	**1,017**	**5,867**

At December 31, 2021, the weighted average nominal interest rate for bonds and commercial paper is 1.40% (1.08% after hedging).

26.1.1 2022 convertible bonds

Some holders of the convertible bonds due in January 2022 chose to exercise their conversion right in the second half of 2021, i.e., before the scheduled maturity date of January 10, 2022.

These conversions resulted in:

- early repayment of bonds with a nominal value of $8 million in 2021;
- repayment of the $592 million worth of outstanding bonds at maturity on January 10, 2022.

The converted bonds were settled in cash and not in shares of the Company. The risk of additional cash outflows in the event of conversion was hedged using options and had no impact on the Group's cash position and income statement in 2021.

26.1.2 Fenner private placement loan notes

During the second half of 2021, the Group repaid all of the private placement loan notes issued by its subsidiary Fenner. The €80 million ($95 million) tranche due in 2021 was repaid at maturity, and the tranche due in 2023 was repaid early, for an amount of €55 million ($65 million).

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, 2021, loans from financial institutions totaled €686 million (2020: €713 million). Most of the loans were denominated in euros 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, as well as in application of its social responsibility policy, the Group takes part mainly in pension, healthcare, death and disability and end-of-service benefit plans, for which the amount of benefits paid varies based on a number of factors including the employee's years of service, salary, accumulated funds with an independent manager or contributions paid to insurers.

Such plans can be either defined benefit plans or defined contribution plans. In the case of defined benefit plans, Group commitments are measured using the projected credit unit method. These commitments are calculated with the help of independent actuaries. In the case of defined contribution plans, liabilities correspond to the contributions due.

Since 2003 the Group has been closing 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.

Since 2005 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.

In Europe, the discount rates are determined with the assistance of the Group's actuary, based on the yield of investment-grade corporate bonds. The rates are applied for the duration of the corresponding liabilities. The discount rate in the United States is based on the local actuary's *AA Only Bond* yield curve rates. The discount rate in Canada is based on the Canadian Institute of Actuaries' Canadian Corporate AA Bond yield curve rates. For countries that have several plans (but only one material plan), the discount rate calculated for the main plan is used for all plans. For countries with several plans of comparable size but quite different durations, several rates are used.

The inflation assumptions are set using different methods. For the Eurozone, the Group's actuarial model is used with reference to different sources of information, such as the target inflation rates set by central banks, the forecasts from Consensus Economics and inflation swap curves. In the United Kingdom, the market-implied inflation rate is also considered (corresponding to the differential between gilts and index-linked gilts, less a spread). In the United States and Canada, the cost-of-living increases for some pensions are set using historical averages, central bank targets and implied inflation (corresponding to the differential between indexed and non-indexed bonds).

The salary increase assumptions can be either spreads above inflation (either RPI or CPI) or absolute values. These assumptions take into account expected long-term yearly average salary increases as well as the effects of promotions. In some cases, assumptions by category of personnel can be used.

The post-employment mortality tables used for the pension plans that are funded through insured contracts are the insurers' tables. For the other main post-employment plans, the following tables are used: (i) United States: *Pri-2012* Blue Collar table using Scale *MP-2020* (Michelin custom Table for retirees); (ii) Canada: 105% of *CPM 2014 Private – MI-2017*; (iii) United Kingdom: Generational *S3PA CMI 2020* with a 1.5% floor and a weighting of 113% for men and 99% for women, and (iv) Germany: *Heubeck RT 2019 G*.

	December 31, 2021				December 31, 2020			
	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	21.7	21.1	20.2	18.4	21.6	21.0	20.2
Life expectancy for males at 65 (15 years after the end of the reporting period)	19.3	22.8	21.7	22.3	19.3	22.8	21.6	22.3
Life expectancy for females at 65 at the end of the reporting period	20.3	24.2	23.9	23.7	20.3	24.1	23.8	23.7
Life expectancy for females at 65 (15 years after the end of the reporting period)	21.3	25.2	25.0	25.4	21.3	25.2	24.9	25.4

The financial position of the main defined benefit plans is summarized below:

(in € millions)	Pension plans	Other plans	December 31, 2021	December 31, 2020
Present value of fully or partly funded obligations	7,578	-	7,578	7,795
Fair value of plan assets	(7,516)	-	(7,516)	(7,373)
Funded status deficit/(surplus)	**62**	**-**	**62**	**422**
Present value of unfunded obligations	1,097	1,774	2,871	3,014
Unrecognized assets due to the effect of the asset ceiling	97	-	97	53
NET DEFINED BENEFIT OBLIGATION	**1,256**	**1,774**	**3,030**	**3,489**
Amounts recognized in the statement of financial position:				
▶ As assets under non-current financial assets and other non-current assets (note 15)			(332)	(211)
▶ As liabilities under employee benefit obligations			3,362	3,700
NET LIABILITY	**1,256**	**1,774**	**3,030**	**3,489**

At December 31, 2021, the projected defined benefit obligation comprised €3,389 million for active members (current employees), €1,299 million for members who have deferred their vested benefits and €5,762 million for retired members (2020: respectively €3,905 million, €1,358 million and €5,546 million).

At December 31, 2021, the projected defined benefit obligation comprised €8,356 million for vested benefits and €2,094 million for unvested benefits (2020: respectively €8,653 million and €2,156 million).

Actuarial gains and losses on post-employment defined benefit plans are recognized in other comprehensive income when they occur.

The Group does not recognize as an asset any surplus in excess of the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. If a defined benefit plan is subject to a minimum funding requirement (MFR), the Group immediately recognizes a liability for any surplus resulting from the contributions paid under the MFR which would not be fully recoverable through economic benefits available to the Group.

Any reduction in assets or increase in liabilities resulting from the effect of the asset ceiling is recognized in other comprehensive income.

The movements in net defined benefit obligations recognized in the consolidated statement of financial position are shown below:

(in € millions)	Pension plans	Other plans	2021	2020
At January 1	**1,626**	**1,863**	**3,489**	**3,828**
Contributions paid to the fund managers	(19)	-	(19)	(142)
Benefits paid directly to the beneficiaries	(48)	(71)	(119)	(146)
Other movements	-	(3)	(3)	-
ITEMS RECOGNIZED IN OPERATING INCOME				
Current service cost	34	77	111	115
Actuarial (gains) or losses recognized on other long-term benefit plans	-	(8)	(8)	1
Past service cost resulting from plan amendments	(1)	-	(1)	(2)
Effect of plan curtailments or settlements	(1)	-	(1)	9
Effect of plan curtailments recognized within reorganizations and adaptation of activities	(72)	(96)	(168)	5
Other items	8	(1)	7	6
ITEMS RECOGNIZED OUTSIDE OPERATING INCOME				
Net interest on employee benefit obligations	12	29	41	54
ITEMS RECOGNIZED IN OTHER COMPREHENSIVE INCOME				
Translation adjustments	(4)	56	52	(94)
Actuarial (gains) or losses	(317)	(72)	(389)	(145)
Unrecognized assets due to the effect of the asset ceiling	38	-	38	-
AT DECEMBER 31	**1,256**	**1,774**	**3,030**	**3,489**

The amount of actuarial gains or losses presented in the statement of comprehensive income and recognized in equity is detailed in the table below:

(in € millions)	Pension plans	Other plans	2021	2020
At January 1	**1,585**	**613**	**2,198**	**2,343**
Actuarial (gains) or losses recognized during the year due to changes in demographic assumptions:				
▶ Due to change in assumptions	(11)	(14)	(25)	(82)
▶ Due to experience adjustments	(30)	(48)	(78)	18
Actuarial (gains) or losses recognized during the year due to changes in financial assumptions:				
▶ Due to change in assumptions	(230)	(29)	(259)	633
▶ Due to experience adjustments	(46)	19	(27)	(714)
Unrecognized assets due to the effect of the asset ceiling	38	-	38	-
Change in scope of consolidation	-	-	-	-
AT DECEMBER 31	**1,306**	**541**	**1,847**	**2,198**
Of which actuarial (gains) or losses	*1,209*	*541*	*1,750*	*2,145*
Of which asset ceiling effect	*97*	*-*	*97*	*53*

In 2021, the net amount recognized in the consolidated income statement was income of €19 million (2020: expense of €188 million), broken down as follows:

(in € millions)	Pension plans	Other plans	2021	2020
Current service cost	34	77	111	115
Net interest on net defined benefit obligation (asset)	12	29	41	54
Actuarial (gains) or losses recognized during the year on other long-term defined benefit plans	-	(8)	(8)	1
Past service cost recognized during the year:				
▶ Due to the introduction of or amendments to defined benefit plans	(1)	-	(1)	(2)
▶ Due to curtailments of defined benefit plans	-	-	-	-
Effect of defined benefit plan settlements	(1)	-	(1)	9
Other items	8	(1)	7	6
Portion of defined benefit expenses recognized under provisions for reorganizations and adaptation of activities	(72)	(96)	(168)	5
TOTAL RECOGNIZED IN THE INCOME STATEMENT	**(20)**	**1**	**(19)**	**188**

Annual costs are determined with the assistance of independent actuaries at the beginning of each financial year based on the following factors:

- cost corresponding to acquisition of an additional year of rights ("Current service cost");
- income/expense corresponding to the discounting adjustment made to reflect the impact of the passage of time ("Net interest");
- income/expense from annual recognition of actuarial gains or losses on other long-term defined benefit plans ("Actuarial (gains) or losses recognized during the year");
- gain/loss resulting from plan amendments or the introduction of benefit plans ("Past service cost recognized during the year");
- gain/loss resulting from curtailments of any benefit plans ("Past service cost recognized during the year");
- gain/loss resulting from the settlement of any benefit plans.

27.1.1 Pension plans

The Group offers its employees in some countries different pension plans that vary according to local laws and regulations and the collective bargaining agreements applicable in each subsidiary.

Under defined benefit plans, the future level of benefits is defined by the plan regulations. The valuation of such defined benefit plans is carried out with the assistance of independent actuaries using actuarial techniques. Defined benefit pension plans may be funded through payments to external funds or to insurers. In the case of unfunded plans, such as the German pension plans, a provision is recognized in the consolidated statement of financial position.

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 provisions applicable to the main population are described below.

The plan was closed to new entrants as of January 1, 2004. Accruals were frozen under the plan as of December 31, 2016. These participants have been enrolled in a defined benefit contribution plan.

The plan sets the normal retirement age at 65. However, employees who have reached age 55 and have completed at least ten years of service are eligible for early retirement benefits under the applicable provisions.

In the event of early retirement, the amount of the pension is reduced but a supplemental benefit may be granted to employees who have reached the age of 55 and completed 30 years of service, to bridge the gap between early retirement and social security eligibility.

The plan provides for a guaranteed monthly annuity based on a set formula (with a lower accrual rate on the amount corresponding to the social security wage base) that takes into consideration the years of plan membership and average pensionable earnings. Only employees who have voluntarily joined the defined contribution plan (in 2004 or 2007) may receive a lump sum payment.

The plan includes provisions for death-in-service benefits as well as a spouse reversionary pension and orphan's pension upon the death of the retiree. The plan also provides for disability benefits.

The plan includes a cost-of-living adjustment clause applicable to the pensions of employees hired before January 1, 1991.

The plan is fully funded 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. Since this date, new entrants have been enrolled in a defined contribution plan. Accruals for most of the participants were frozen under the plan as of December 31, 2015. All employees are enrolled in a defined benefit contribution plan.

The plan sets the normal retirement age at 65. However, employees who have reached the age 55 or completed 30 years of service are eligible for early retirement benefits under the applicable provisions.

In the event of early retirement, the amount of the pension is reduced but a supplemental benefit is granted to employees who have completed 30 years of service, to partially bridge the gap between early retirement and social security eligibility.

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 provisions for death-in-service benefits as well as a spouse reversionary pension or a beneficiary pension upon the death of the retiree. The plan also provides for disability benefits.

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 currently fully funded 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 plan sets the normal retirement age at 65. However, employees who have reached the age of 55 are eligible for early retirement under the applicable provisions, with the Group's consent. In the case of early retirement, the accrued benefit is reduced by an actuarial reduction factor.

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 plan also provides death-in-service benefits, a spouse reversionary pension and disability benefits.

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 fully funded 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 plans set the normal retirement age at 65.

They provide for a lifetime monthly annuity which is based on the employee's pensionable earnings.

A flat rate applies to the amount of earnings exceeding the social security ceiling and an additional rate, calculated based on years of service, is applied to the total pensionable earnings.

The plan includes provisions for death-in-service benefits, a spouse reversionary pension, an orphan's pension and disability benefits.

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

There is one major pension defined benefit plan in France, "Régime de retraite supplémentaire MFPM".

In order to be eligible, employees must have completed ten years of service and still be on the payroll at the retirement date.

This plan was set up in 1996 in order to provide additional retirement income to all employees in the event that their pension under the mandatory government-sponsored plans represents less than a certain replacement rate (top hat plan). The additional benefit is calculated based on years of service and pensionable earnings. The plan provides for the payment of a pension to the surviving spouse and a disability pension.

The historical threshold has been gradually lowered since January 1, 2013 to zero in 2046. In return, employees participate in a mandatory defined contribution plan (PERO, ex-Article 83 plan) and can also participate in a voluntary defined contribution plan (PERCOL, ex-PERCO).

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.

Following an agreement with two co-insurers, the Group has transferred as of January 1, 2021, the obligation related to the plan's retirees. This partial liquidation of the plan reduced the obligation and plan assets for an amount of €212 million.

The following table analyzes changes in the financial position of the Group's defined benefit pension plans:

(in € millions)	2021				2020			
	North America	Europe	Other	Total	North America	Europe	Other	Total
Present value of the obligations at the beginning of the year	3,967	4,932	47	**8,946**	4,205	4,950	62	**9,217**
Translation adjustments	325	238	-	**563**	(356)	(177)	(16)	**(549)**
Change in scope of consolidation	-	-	-	**-**	-	-	-	**-**
Current service cost	1	32	1	**34**	3	36	1	**40**
Interest cost on the defined benefit obligation	99	56	2	**157**	125	70	3	**198**
Administrative costs	3	5	-	**8**	2	4	-	**6**
Plan reorganization costs generated during the year:								
▶ past service cost due to the introduction of or amendments to defined benefit plans	-	(1)	-	**(1)**	-	-	-	**-**
▶ past service cost due to curtailments of defined benefit plans	-	(72)	-	**(72)**	-	1	-	**1**
▶ (gains) or losses on settlement of defined benefit plans	-	(1)	-	**(1)**	-	9	-	**9**
Benefits paid during the year	(269)	(199)	(3)	**(471)**	(262)	(230)	(3)	**(495)**
Other items*	-	(211)	1	**(210)**	-	21	1	**22**
Actuarial (gains) or losses generated during the year	(169)	(105)	(4)	**(278)**	250	248	(1)	**497**
Present value of the obligations at the end of the year	**3,957**	**4,674**	**44**	**8,675**	**3,967**	**4,932**	**47**	**8,946**
Fair value of plan assets at the beginning of the year	3,773	3,561	39	**7,373**	3,898	3,394	49	**7,341**
Translation adjustments	317	254	1	**572**	(334)	(185)	(14)	**(533)**
Change in scope of consolidation	-	-	-	**-**	-	-	-	**-**
Interest income on plan assets	93	50	2	**145**	116	58	2	**176**
Contributions paid to the funds	-	19	-	**19**	-	142	-	**142**
Benefits paid by the plans during the year	(268)	(153)	(2)	**(423)**	(262)	(196)	(2)	**(460)**
Other items*	-	(210)	1	**(209)**	-	21	1	**22**
Actual return on plan assets excluding interest income	7	38	(6)	**39**	355	327	3	**685**
Fair value of plan assets at the end of the year	**3,922**	**3,559**	**35**	**7,516**	**3,773**	**3,561**	**39**	**7,373**
Deficit/(surplus) at the end of the year	**35**	**1,115**	**9**	**1,159**	**194**	**1,371**	**8**	**1,573**
Deferred items at the beginning of the year	(50)	-	(3)	**(53)**	(55)	-	-	**(55)**
Translation adjustments	(5)	-	-	**(5)**	3	-	1	**4**
Unrecognized assets due to the effect of the asset ceiling	(42)	-	3	**(39)**	2	-	(4)	**(2)**
Deferred items at the end of the year	**(97)**	**-**	**-**	**(97)**	**(50)**	**-**	**(3)**	**(53)**
NET LIABILITY/(ASSET) RECOGNIZED IN THE STATEMENT OF FINANCIAL POSITION AT THE END OF THE YEAR	**132**	**1,115**	**9**	**1,256**	**244**	**1,371**	**11**	**1,626**

* *This 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 voluntary outplacement measures provided for in the Collective Settlement Agreement (RCC phase 1 and phase 2, note 9.2) had the effect of reducing the Group's pension obligations by €72 million. A provision for reorganizations and adaptation of activities was recorded at December 31, 2021 (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 2021, a negative amount of €44 million was recognized on application of the asset ceiling.

In 2021, the projected defined benefit pension obligation decreased by €271 million due to:

(in € millions)	2021	2020
Translation adjustments	(563)	549
Actuarial gains or (losses) from changes in actuarial assumptions and the difference between assumptions and actual experience	278	(497)
Difference between the costs (service cost and interest cost) and the benefits paid during the year	272	251
Changes in plan rules	74	(10)
Changes in the scope of consolidation	-	-
Other items*	210	(22)

* *This 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.*

The fair value of plan assets amounted to €7,516 million at December 31, 2021, representing an increase of €143 million compared to December 31, 2020 due to:

(in € millions)	2021	2020
Translation adjustments	572	(533)
Difference between the contributions paid to the funds and the benefits paid by the funds	(404)	(318)
Actual return on plan assets	184	861
Changes in the scope of consolidation	-	-
Other items*	(209)	22

* *This 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.*

The present value of the defined benefit obligation, the fair value of the plan assets, the surplus or deficit in the plan and the experience adjustments are as follows for 2021 and the previous four periods:

(in € millions)	2021	2020	2019	2018	2017
Defined benefit obligation	(8,675)	(8,946)	(9,217)	(8,304)	(8,443)
Plan assets	7,516	7,373	7,341	6,294	6,367
SURPLUS/(DEFICIT)	**(1,159)**	**(1,573)**	**(1,876)**	**(2,010)**	**(2,076)**
Experience adjustments to:					
▶ plan liabilities	37	(7)	(5)	15	32
▶ plan assets	39	685	727	(284)	415

The experience adjustments expressed as a percentage of the present value of the obligation and the fair value of plan assets are presented in the table below:

Experience adjustments to:	2021	2020	2019	2018	2017
▶ the plan liabilities as a percentage of the present value of the obligation (DBO)	-0.43%	0.08%	0.05%	-0.18%	-0.38%
▶ the plan assets as a percentage of the fair value of the assets	0.52%	9.29%	9.90%	-4.51%	6.52%

The main actuarial weighted average assumptions used to measure pension plan obligations are as follows:

	December 31, 2021			December 31, 2020		
	North America	Europe	Other	North America	Europe	Other
Discount rate	2.83%	1.39%	8.80%	2.47%	1.08%	6.85%
Inflation rate	2.00%	2.75%	3.25%	2.00%	2.39%	3.25%
Rate of salary increases	2.40%	3.08%	3.65%	2.41%	2.77%	3.69%
Weighted average duration of the defined benefit obligation	11.2	15.7	13.4	12.0	15.6	13.9

The discount rates, salary increase rates and inflation rates are the main financial assumptions used in the measurement of the defined benefit obligation (DBO) and changes in these rates may have a significant effect on the amounts reported.

For each plan, all the actuaries calculate the sensitivities of the DBO and current service cost to changes in the main assumptions. In the case of a change in one of these assumptions, DBO and current service cost sensitivities are expressed as weighted average changes in these items.

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 2021, all else being equal, would have the following effect:

	0.5-point increase	0.5-point decrease
Discount rate on the defined benefit obligation (DBO)	-6.54%	7.32%
Discount rate on the aggregate of current service cost and interest cost on the obligation	12.71%	-14.80%
Inflation rate on the defined benefit obligation (DBO)	3.26%	-3.13%
Inflation rate on the aggregate of current service cost and interest cost on the obligation	3.43%	-3.24%
Salary increase rate on the defined benefit obligation (DBO)	0.75%	-0.68%
Salary increase rate on the aggregate of current service cost and interest cost on the obligation	1.43%	-1.27%
Interest rates on the fair market value of plan assets	-5.50%	5.99%

Net income and expenses recognized in the income statement as well as the actual return on plan assets are as follows:

	2021				2020			
(in € millions)	North America	Europe	Other	Total	North America	Europe	Other	Total
Current service cost	1	32	1	**34**	3	36	1	**40**
Interest cost on the defined benefit obligation	99	56	2	**157**	125	70	3	**198**
Interest income on plan assets	(93)	(50)	(2)	**(145)**	(114)	(59)	(3)	**(176)**
Actuarial (gains) or losses recognized during the year on other long-term defined benefit plans	-	-	-	**-**	-	-	-	**-**
Past service cost recognized during the year:								
▶ Due to the introduction of or amendments to defined benefit plans	-	(1)	-	**(1)**	-	-	-	**-**
▶ Due to curtailments of defined benefit plans	-	-	-	**-**	-		-	**-**
Effect of defined benefit plan settlements	-	(1)	-	**(1)**	-	9	-	**9**
Other items	3	5	-	**8**	2	4	-	**6**
Portion of defined benefit expenses recognized under provisions for reorganizations and adaptation of activities	-	(72)	-	**(72)**	-	1	-	**1**
TOTAL DEFINED PENSION BENEFIT COST	**10**	**(31)**	**1**	**(20)**	**16**	**61**	**1**	**78**
Actual return on plan assets	100	88	(4)	**184**	471	385	5	**861**

The asset allocation of fully and partly funded pension plans is as follows:

	December 31, 2021					December 31, 2020				
	Canada	United States	United Kingdom	Other	Total	Canada	United States	United Kingdom	Other	Total
LISTED SECURITIES										
Local equities	1.7%	5.4%	0.0%	0.0%	**2.2%**	1.9%	8.5%	0.0%	0.0%	**3.3%**
Foreign and global equities	3.8%	4.8%	0.8%	0.0%	**2.7%**	7.2%	7.5%	1.2%	0.0%	**4.3%**
Alternative investments	1.8%	8.7%	0.0%	0.0%	**3.4%**	0.0%	9.2%	0.8%	0.0%	**3.6%**
Real estate	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
Index-linked bonds	0.0%	0.0%	20.2%	14.0%	**9.5%**	0.1%	0.0%	20.6%	7.2%	**9.3%**
Fixed income government and agencies	34.1%	23.0%	12.4%	0.0%	**19.3%**	26.3%	16.6%	13.2%	0.0%	**15.7%**
Corporate bonds	19.0%	37.1%	19.0%	0.0%	**25.0%**	15.6%	31.1%	19.1%	0.0%	**21.7%**
Other fixed income securities, multi-asset credit and emerging market bonds	27.8%	8.4%	25.2%	0.0%	**18.8%**	39.8%	16.6%	23.9%	0.0%	**22.4%**
Cash and cash equivalents	2.3%	1.0%	3.5%	2.0%	**2.4%**	3.9%	1.3%	6.5%	2.0%	**4.0%**
Total listed securities	**90.6%**	**88.3%**	**81.0%**	**16.0%**	**83.3%**	**94.8%**	**90.9%**	**85.3%**	**9.2%**	**84.4%**
UNLISTED SECURITIES										
Funds managed by insurance companies	0.0%	0.0%	0.0%	84.0%	**2.4%**	0.0%	0.0%	0.0%	90.8%	**5.2%**
Private placements(1)	6.9%	2.1%	14.3%	0.0%	**8.3%**	3.2%	0.8%	10.5%	0.0%	**5.3%**
Real estate	2.4%	9.5%	4.6%	0.0%	**5.9%**	2.1%	8.3%	4.3%	0.0%	**5.1%**
Total unlisted securities	**9.4%**	**11.7%**	**19.0%**	**84.0%**	**16.7%**	**5.2%**	**9.1%**	**14.7%**	**90.8%**	**15.6%**
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Duration in years of the bond portfolio, excluding cash and cash equivalents and funds managed by insurance companies	13.7	13.3	19.8	11.2	16.4	14.8	14.5	22.6	13.3	18.4

(1) Private placements and private debt

In the above allocation, assets reported under "Listed securities" are assets that have a regularly quoted market value at which they can be sold and those reported under "Unlisted securities" are assets managed by insurance companies and less liquid assets that could be sold on short notice or in difficult markets, at a discount.

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.

Alternative investments are composed of hedge funds and multi-asset products such as diversified growth funds in the United Kingdom. These kinds of investments are expected to deliver absolute returns with lower volatility than equities.

Other fixed income securities include emerging market bonds, mutual funds, liability hedging portfolios for which the managers invest in government and corporate bonds or in derivatives, as well as, in the United Kingdom, in multi-asset funds allowing the managers to switch between the main credit products depending on market conditions. This kind of investment is expected to have a return similar to that of corporate bonds, but with lower volatility due to its diversified profile (including asset backed securities, loans and high-yield bonds as well as cash, government and corporate bonds).

The real estate portfolio in the United Kingdom consists of an investment in an LPI (Limited Price Inflation) Income Property Fund composed of long-term leases that provides a secure, inflation-hedged return.

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.

The largest pension plans have implemented a dynamic asset allocation policy, whereby the target asset allocations are based on the plan's funded status. An improvement in funded status results in the de-risking of the portfolios, allowing more funds to be allocated to liability hedging assets (LHA) and less to return seeking assets (RSA). In the event of a decrease in the funding ratio, the target allocation remains unchanged, as the re-risking of the portfolios is not permitted. These pension plans have also implemented an interest rate hedging policy and, in the United Kingdom, an inflation hedging policy. The hedging ratio increases as the funding level improves.

The RSA are diversified with the objective of targeting efficient portfolios where the level of volatility is minimized for the targeted return. These portfolios combine domestic and global equities with real estate and alternative assets such as hedge funds and private placements. Special attention is given to less liquid asset classes that may complicate the de-risking process by creating concentrated positions or requiring transactions at discounted prices.

The LHA are used to hedge the duration risk as well as, in some cases, the credit spread and inflation risks. The LHA portfolios are primarily composed of government and corporate bonds. 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.

Foreign exchange risks may be hedged when the exposure to a foreign currency is considered to be non-negligible. For instance, the UK fund is exposed to many currencies and has a policy of hedging 75% of its exposure. In Canada, 50% of the US dollar exposure is hedged. In other cases, investment managers are given discretion to hedge currency exposure as they deem necessary.

Group contributions to pension plans and benefit payments made by these plans in 2021 and to be made over the following ten years are as follows:

(in € millions)	North America	Europe	Other	Total
CONTRIBUTIONS PAID AND BENEFITS PAID DIRECTLY BY THE GROUP				
2021	**2**	**65**	**1**	**68**
ESTIMATES OF CONTRIBUTIONS TO BE PAID AND BENEFITS TO BE PAID DIRECTLY BY THE GROUP				
2022	2	71	-	73
2023	2	75	-	77
2024	2	78	-	80
2025	2	88	-	90
2026	2	86	-	88
2027-2031	10	450	-	460

The Group makes contributions to fully and partly funded plans in order to meet its future benefit payment obligations to the beneficiaries. The level of contributions is periodically determined by the Group based on factors such as current funding levels, legal and tax considerations and local practice, in consultation, as the case may be, with local boards and actuaries.

In the United States, the following year's contribution is determined annually in accordance with Internal Revenue Service (IRS) rules, in particular as regards temporary funding relief provided for under the Bipartisan Budget Act of 2015 (BBA15).

In Canada, the contributions are determined on a triennial basis and the funding plan is spread over 15 years as required under local regulations.

In the United Kingdom, the contributions are determined based on triennial actuarial valuations as required by the Pension Act. In the event of a deficit, the employer must implement a recovery plan in agreement with the Trustee. For Michelin Pensions Trust Ltd, the 2021 agreement allows contributions to be deposited in an escrow account if the plan is overfunded, on a basis defined with the Trustee (note 15.2).

In the case of unfunded plans, the payments are made on the due dates, either directly to the beneficiaries or indirectly *via* the relevant fund managers.

Future payments for unfunded plans are estimated based on data included in the calculation of the projected defined benefit obligation according to expected leaving dates each year. The same method is used for calculating the amount of the constitutive capital invested in partially funded plans with insurance companies.

27.1.2 Other defined benefit plans

In many countries, Group employees receive other post-employment benefits and long-term benefits throughout their term of employment. Other post-employment benefits mainly include health insurance and end-of-service benefits. Other defined benefit plans are mainly found in the United States, Canada and France. Other long-term benefits include mainly long-service awards provided under local company-specific agreements. Such defined benefit plans chiefly concern the Group's European companies.

As in the case of the above-described defined benefit pension plans, other defined benefit plans are valued with the assistance of independent actuaries using actuarial techniques. The obligations under these plans are not covered by assets and are recognized in full as liabilities.

The main plans provided within the Group are detailed below:

United States

The Group offers retiree medical benefits that provide healthcare coverage for Pre-Medicare and Medicare eligible retirees and their dependents.

Eligible retirees are mainly those who were active prior to January 1, 2004 and will have at least reached age 55 with 10 years of service at the date of retirement.

For Medicare-eligible retirees, the healthcare coverage is provided in addition to Medicare.

Medical and prescription drug expenses are covered by the plan. The retirees contribute to the cost of the Pre-Medicare post-retirement medical plan.

In 2016, the plan was amended to move non-union Medicare-eligible retirees from a company-sponsored retirement offering to private Medicare exchanges. For this population, the plan provides the following benefit improvements:

- Retiree Reimbursement Account (RRA): this account is funded in a fixed annual amount per retiree and eligible dependents through a Retiree Health Exchange program to either reimburse Medicare, Medicare supplement and/or prescription drug premiums;
- Catastrophic Retiree Reimbursement Account (CRRA): if the retiree or dependent reaches the eligibility threshold for catastrophic drug coverage, he or she can receive reimbursement for the 5% of the out-of-pocket cost not covered by Medicare Part D.

The Group pays a premium for the administrative services. This plan is not pre-funded.

Canada

The Group provides healthcare coverage to certain retirees and their dependents. Medical and prescription drug expenses are covered by the plan.

This plan was closed to new entrants as from January 1, 2005.

The Group pays a premium for the administrative services. 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.

Changes in the financial position of other defined benefit plans are as follows:

	December 31, 2021				December 31, 2020			
(in € millions)	North America	Europe	Other	Total	North America	Europe	Other	Total
Present value of the obligations at the beginning of the year	**689**	**1,089**	**85**	**1,863**	**759**	**1,047**	**91**	**1,897**
Translation adjustments	55	(3)	4	**56**	(63)	4	(15)	**(74)**
Change in scope of consolidation	-	(3)	-	**(3)**	-	-	-	**-**
Current service cost	13	55	9	**77**	9	57	9	**75**
Interest cost on the defined benefit obligation	16	10	3	**29**	22	9	1	**32**
Administrative costs	-	-	-	**-**	-	-	-	**-**
Plan reorganization costs generated during the year:								
▶ Past service cost due to the introduction of or amendments to defined benefit plans	-	-	-	**-**	-	(2)	-	**(2)**
▶ Past service cost due to curtailments of defined benefit plans	-	(96)	-	**(96)**	-	4	-	**4**
▶ (Gains) or losses on settlement of defined benefit plans	-	-	-	**-**	-	-	-	**-**
Benefits paid during the year	(45)	(21)	(5)	**(71)**	(50)	(57)	(4)	**(111)**
Other items	-	-	(1)	**(1)**	-	(1)	2	**1**
Actuarial (gains) or losses generated during the year	(61)	(17)	(2)	**(80)**	12	28	1	**41**
Present value of the obligations at the end of the year	**667**	**1,014**	**93**	**1,774**	**689**	**1,089**	**85**	**1,863**
Fair value of plan assets at the beginning of the year	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Translation adjustments	-	-	-	**-**	-	-	-	**-**
Change in scope of consolidation	-	-	-	**-**	-	-	-	**-**
Interest income on plan assets	-	-	-	**-**	-	-	-	**-**
Contributions paid to the funds	-	-	-	**-**	-	-	-	**-**
Benefits paid by the plans during the year	-	-	-	**-**	-	-	-	**-**
Other items	-	-	-	**-**	-	-	-	**-**
Actual return on plan assets excluding interest income	-	-	-	**-**	-	-	-	**-**
Fair value of plan assets at the end of the year	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Deficit/(surplus) at the end of the year	**667**	**1,014**	**93**	**1,774**	**689**	**1,089**	**85**	**1,863**
NET LIABILITY/(ASSET) RECOGNIZED IN THE STATEMENT OF FINANCIAL POSITION AT THE END OF THE YEAR	**667**	**1,014**	**93**	**1,774**	**689**	**1,089**	**85**	**1,863**

In France, the voluntary early retirement and voluntary outplacement measures provided for in the Collective Settlement Agreement (note 9.2) had the effect of reducing the Group's other post-employment benefit obligations by €96 million. A provision for reorganizations and adaptation of activities was recorded at December 31, 2021 (note 29).

In 2021, the present value of other defined benefit plans decreased by €89 million, due to:

	2021	2020
Effect of changes in exchange rates for the US dollar, pound sterling and Canadian dollar against the euro	(56)	74
Actuarial gains or (losses) from changes in actuarial assumptions and difference between assumptions and actual experience	80	(41)
Difference between the costs (service cost and interest cost) and the benefits paid during the year	(35)	4
Changes in plan rules	96	(2)
Changes in the scope of consolidation	3	-
Other items	1	(1)

The present value of the other defined benefit obligation and experience adjustments are as follows for 2021 and the previous four periods:

(in € millions)	2021	2020	2019	2018	2017
Defined benefit obligation	(1,774)	(1,863)	(1,897)	(1,760)	(1,820)
Experience adjustments to plan liabilities	29	19	48	14	46
Experience adjustments to plan liabilities *(as a % of the present value of the obligation – DBO)*	-1.63%	-1.02%	-2.53%	-0.80%	-2.53%

The main actuarial weighted average assumptions used to measure obligations for other defined benefit plans are as follows:

	December 31, 2021			December 31, 2020		
	North America	Europe	Other	North America	Europe	Other
Discount rate	2.69%	1.01%	4.34%	2.43%	0.69%	2.60%
Weighted average duration of the defined benefit obligation	10.2	15.4	13.6	11.5	14.2	12.5

Assumptions concerning healthcare cost trends are as follows:

	December 31, 2021		December 31, 2020	
	United States	Canada	United States	Canada
Expected growth in healthcare costs in the first year	8.25%	4.47%	7.00%	4.04%
Minimum long-term rate of annual growth in healthcare costs	4.50%	4.05%	4.93%	4.05%
Year in which the minimum growth rate will be achieved	2030	2040	2026	2040

The discount rate is one of the main assumptions used in the measurement of the defined benefit obligation and changes in this rate may have a significant effect on the amounts reported. For each plan, all the actuaries calculate the sensitivities of the DBO and current service cost to changes in the main assumptions. The sensitivities of the DBO and cost (meaning in this case the aggregate of the current service cost and interest cost on the obligation) correspond to the weighted average change in the DBO and the cost, respectively, when one of these assumptions changes.

A 0.5-point change in these rates compared with those used for 2021, all else being equal, would have the following effect:

	0.5-point increase	0.5-point decrease
Discount rate on the defined benefit obligation (DBO)	-6.58%	7.37%
Discount rate on the aggregate of the current service cost and interest cost on the obligation	-0.44%	0.65%
Healthcare cost trend rate on the healthcare defined benefit obligation	1.49%	-1.36%
Healthcare cost trend rate on the aggregate of the current service cost and interest cost on the healthcare plan obligation	1.16%	-1.33%

Net income and expenses recognized in the income statement are as follows:

(in € millions)	2021 North America	2021 Europe	2021 Other	2021 Total	2020 North America	2020 Europe	2020 Other	2020 Total
Current service cost	13	55	9	77	9	57	9	75
Interest cost on the defined benefit obligation	16	10	3	29	22	9	1	32
Interest income on plan assets	-	-	-	-	-	-	-	-
Actuarial (gains) or losses recognized during the year on other long-term defined benefit plans	-	(8)	-	(8)	-	(1)	2	1
Past service cost recognized during the year:								
▶ Due to the introduction of or amendments to defined benefit plans	-	-	-	-	-	(2)	-	(2)
▶ Due to curtailments of defined benefit plans	-	-	-	-	-	-	-	-
Effect of defined benefit plan settlements	-	-	-	-	-	-	-	-
Other items	-	-	(1)	(1)	-	-	-	-
Portion of defined benefit expenses recognized under provisions for reorganizations and adaptation of activities	-	(96)	-	(96)	-	4	-	4
TOTAL OTHER DEFINED BENEFIT EXPENSES	**29**	**(39)**	**11**	**1**	**31**	**67**	**12**	**110**

Benefit payments made under other defined benefit plans in 2021 and to be made over the following ten years are as follows:

(in € millions)	North America	Europe	Other	Total
BENEFIT PAYMENTS MADE				
2021	45	21	5	71
ESTIMATES OF BENEFIT PAYMENTS TO BE MADE				
2022	45	24	6	75
2023	45	19	2	66
2024	44	23	2	69
2025	44	28	3	75
2026	44	35	4	83
2027-2031	201	245	27	473

For unfunded plans, such payments are made on the due dates, either directly to the beneficiaries or indirectly to the relevant administrators.

27.2 Defined contribution plans

In some Group companies, employees are covered by defined contribution plans. Such plans mainly provide benefits in addition to those of mandatory post-employment plans.

In 2021, the contributions paid to defined contribution plans and expensed amounted to €218 million (2020: €217 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 MRAP plan is fully funded by employer contributions. The contribution levels are based on age and years of service. The 401(k) plans are voluntary and are funded by employee contributions with employer matching contributions. In both the MRAP and 401(k) plans, asset allocation decisions are made by the employees. The asset allocation choices are determined and monitored by the North American Investment Committee under the authority of the *US Pension Board.*

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 core employer contributions and optional employee contributions with employer matching. The core contribution levels, modified at January 1, 2016, are based on years of service and age. The RRSP plan is voluntary and is funded by employee contributions with employer matching contributions. In both the DC and RRSP plans, asset allocation decisions are made by the employees. The asset allocation choices are determined and monitored by the North American Investment Committee under the authority of the US Pension Board.

United Kingdom

The main defined contribution pension plan in the United Kingdom is the Michelin Pension and Life Assurance plan DC section (for Michelin and ATS employees). It has been implemented as of December 1, 2004 for new entrants and as of January 1, 2009 for all employees who did not opt out.

For Michelin employees, there are employee and employer contributions to this plan. The contributions are based on a percentage of the eligible pay and age of the employee.

Employees may also make optional contributions to the plan and the Group will match some of these optional contributions. For ATS employees, there are employee and employer contributions. The level of contribution is chosen by the employee and matched by the employer. Contributions are a flat-rate amount whatever the age of the employee.

All contributions to the plan are held in a Pension Account in a Trust. The employees choose how to invest these contributions among the different options made available for the plan. The asset allocation choices are determined and monitored by the Board of Trustees.

France

There are two defined contribution pension schemes in France: PERO (ex Article 83) and PERCOL (ex PERCO).

PERO is a mandatory retirement savings plan. It was established as of January 1, 2012 to replace the "Régime de retraite supplémentaire MFPM" defined benefit plan. Contributions are paid by the employee and the employer based on the capped gross annual salary.

PERCOL is a voluntary retirement savings plan established on June 1, 2007 and revised on January 1, 2012. The company pays a capped contribution.

NOTE 28 SHARE-BASED PAYMENTS

28.1 Employee stock option plans

Changes in the number of options granted under stock option plans and their weighted average exercise price are as follows:

	2021		2020	
	Weighted average exercise price *(in € per option)*	Number of options	Weighted average exercise price *(in € per option)*	Number of options
At January 1	**51.16**	**22,588**	**56.23**	**37,185**
Granted	-	-	-	-
Forfeited	51.16	(13,200)	51.16	(27)
Exercised	51.16	(9,388)	64.09	(14,570)
AT DECEMBER 31	**0.00**	**-**	**51.16**	**22,588**

The last stock options were granted in June 2012 and expired in June 2021.

28.2 Share grants and performance share plans

Changes in the number of share grants and performance share rights are as follows:

	2021	2020
	Number of share grants or performance share rights outstanding	Number of share grants or performance share rights outstanding
At January 1	**1,273,400**	**870,805**
Granted	319,622	589,020
Forfeited	(108,428)	(104,907)
Shares delivered	(180,976)	(81,518)
AT DECEMBER 31	**1,303,618**	**1,273,400**

Excellence Plan

In November 2021, 319,622 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 2025 without any lock-up period. The shares will vest at the end of this period if the performance objectives have been 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 €109.61. 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 total cost of the Excellence plan set up in 2021 is estimated at €26 million.

The share grants and performance share plans have the following characteristics:

Grant date	Vesting date		Lock-up period		Fair value at grant date		December 31, 2021 Number of share grants or performance share rights outstanding	December 31, 2020 Number of share grants or performance share rights outstanding
	France	Other countries	France	Other countries	France	Other countries		
2017	2021	2021	None	None	66.84	66.84	-	182,751
2018	2022	2022	None	None	47.91	47.91	38,821	127,480
2019	2023	2023	None	None	62.01	62.01	369,803	374,369
2020	2024	2024	None	None	75.62	75.62	495,928	506,236
2020	2022	N/A	None	N/A	101.54	N/A	79,988	82,564
2021	2025	2025	None	None	109.61	109.61	319,078	-
NUMBER OF SHARE GRANTS OR PERFORMANCE SHARE RIGHTS OUTSTANDING							**1,303,618**	**1,273,400**

The expense recognized in 2021 for performance share plans amounts to €21 million (2020: €17 million). It is included in "Segment other income and expenses".

NOTE 29 PROVISIONS AND OTHER NON-CURRENT LIABILITIES

Provisions and other non-current liabilities amount to €759 million (2020: €775 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, 2021	**258**	**345**	**603**
Additional provisions	257	136	393
Provisions utilized during the period	(209)	(77)	(286)
Unused provisions reversed during the year	(8)	(12)	(20)
Translation adjustments	3	10	13
Other effects	1	(4)	(3)
AT DECEMBER 31, 2021	**302**	**398**	**700**
Of which short-term portion (note 30)	193	83	276

29.2 Reorganizations and adaptation of activities

At December 31, the remaining provisions for reorganizations and adaptation of activities relate to following countries:

(in € millions)	December 31, 2021	December 31, 2020
France[(1)]	198	88
Germany[(2)]	57	116
United Kingdom	27	32
Other countries	20	22
TOTAL	**302**	**258**

(1) *The total includes the provision set aside in 2021 in connection with the simplification and competitiveness plan (note 9.2), as well as the balance of provisions for previously announced reorganization plans, in particular the closure of the La Roche-sur-Yon site.*
(2) *It corresponds mainly to provisions for costs related to the closure of the Bamberg plant set aside in 2019 and the industrial and services competitiveness plan measures (note 9.2).*

29.3 Provisions for claims and litigation, warranties and other provisions

Provisions at December 31 concern the following risks:

(in € millions)	December 31, 2021	December 31, 2020
Provisions for claims and litigation	102	90
Provisions for product warranties (note 3.8)	69	62
Provisions for product liability claims	74	40
Other provisions for contingencies	153	153
TOTAL	**398**	**345**

Provisions for claims and litigation mainly concern litigation with URSSAF dating back several years for €50 million (2020: €50 million).

NOTE 30 PROVISIONS AND OTHER CURRENT LIABILITIES

The carrying amount of other current liabilities is presented in the table below:

(in € millions)	December 31, 2021	December 31, 2020
Customers - Deferred rebates	992	796
Employee benefit obligations	871	556
Payroll tax liabilities	349	304
Provisions for reorganizations and adaptation of activities	193	168
Income tax payable	238	186
Other taxes	245	223
Other	429	407
PROVISIONS AND OTHER CURRENT LIABILITIES	**3,317**	**2,640**

NOTE 31 NOTES TO THE STATEMENT OF CASH FLOWS

Cash flows are presented in detail in the table below:

(in € millions)	2021	2020
Investment grants recognized in profit or loss	(12)	(12)
Change in employee benefit obligations	(42)	(180)
Change in litigation and other provisions	29	(5)
Restructuring costs	(214)	(206)
Other	38	18
Other operating income and expenses (cash) and change in provisions	**(201)**	**(385)**
Interest and other financial expenses paid	(227)	(305)
Interest and other financial income received	7	28
Dividends received	13	12
Interest and other financial income and expenses received and paid, net	**(207)**	**(265)**
Change in inventories	(1,106)	552
Change in trade receivables and advances	(370)	92
Change in trade payables and advances	527	(34)
Change in trade payables under reverse factoring agreements	120	15
Change in other receivables and payables	5	75
Change in working capital, net of impairment	**(824)**	**700**
Purchases of intangible assets (note 13)	(211)	(180)
Purchases of PP&E (note 14)	(1,494)	(1,041)
Government grants received	9	6
Change in capital expenditure payables	217	(154)
Purchases of intangible assets and PP&E	**(1,479)**	**(1,369)**
Increase in other non-current financial assets	(48)	(45)
Decrease in other non-current financial assets	79	26
Net cash flows from cash management financial assets	(150)	(105)
Net cash flows from borrowing collaterals	(51)	79
Net cash flows from other current financial assets	(33)	20
Cash flows relating to other financial assets	**(203)**	**(25)**
Increase in non-current financial liabilities	44	2,439
Decrease in non-current financial liabilities	(774)	(1,076)
Repayment of lease liabilities	(244)	(244)
Net cash flows from current financial liabilities	(90)	731
Derivatives	21	(66)
Cash flows relating to financial liabilities	**(1,043)**	**1,784**
Details of non-cash transactions:		
▸ New leases (note 14)	167	211
▸ New emission allowances granted	13	12

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, 2021 amounts to €331 million (of which €46 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 2022. They are entered into on arm’s length terms in the normal course of business.

32.2 Contingencies

32.2.1 Brazil

During 2021, one of the Group's Brazilian subsidiaries received a notice of reassessment from the tax authorities following an audit of its 2017 accounts. The reassessment concerns the deductibility of goodwill amortization recorded during the year. The subsidiary strongly contests the reassessment and lodged an appeal before the Administrative Court on April 27, 2021.

Following the unfavorable ruling of the Administrative Court, the Group is planning to lodge an appeal with the Brazilian Administrative Tax Appeal Board. It considers that amortizing the goodwill was justified, in terms of both its form and substance, and believes that the court is likely to find in its favor. Consequently, no provision has been recorded for this matter.

32.2.2 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, 2021, the present value of future contributions in excess of the provision booked in the consolidated financial statements was €7 million, including €0 million for the guarantee given to the trustees of the Michelin Pension Trust Ltd UK and €7 million for the guarantee given to Fenner Pension Scheme Trustee Limited.

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.

32.2.3 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 (2020: €33 million).

32.3.2 Financial assets

The €184 million held in an escrow account linked to the pension plan in the United Kingdom is pledged to the plan and is therefore not freely available (note 15.2).

Loans and deposits amounting to €74 million (2020: €22 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 €477 million (2020: €463 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, 2021 (2020: €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 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 December 31, 2021, 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 economcic 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.

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 derivatives 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, 2021, the debt repayment schedule (principal and interest) and the maturities of undrawn confirmed credit lines are as follows:

(in € millions)	2022	2023	2024	2025	2026	2027	2028 and beyond
Bonds	893	575	68	810	59	354	4,015
Commercial paper	257	-	-	-	-	-	-
Loans from financial institutions and other	509	100	23	40	12	7	6
Lease liabilities	253	212	171	129	98	55	148
Derivative instruments	5	(57)	6	4	2	3	-
DEBT REPAYMENT SCHEDULE	**1,917**	**830**	**268**	**983**	**171**	**419**	**4,169**
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.

In 2020, the Group increased its syndicated credit line to €2,500 million and rolled it over for a further period of three years, with two one-year extension options. At the end of 2021, the Group exercised its first extension option, extending the maturity from 2023 to 2024.

The Group considers that at December 31, 2021 its sources of financing were sufficient to meet the needs of the business:

- cash and cash equivalents for €4,482 million;
- cash management financial assets for €435 million;
- a €2,500 million NEU CP commercial paper program, of which €236 million had been utilized at December 31, 2021;
- a $700 million (€619 million) US CP commercial paper program, of which $25 million (€22 million) had been utilized at December 31, 2021;
- two €477 million factoring programs activated when there are sufficient trade receivables of high enough quality, drawn down by €15 million as of December 31, 2021;
- €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, 2021					December 31, 2020				
(in € millions)	EUR	CNY	USD	MXN	Other	EUR	CNY	USD	MXN	Other
Hedges	552	(208)	490	(571)	(1,222)	817	(321)	386	(513)	(545)

The other currencies mainly include currency hedges in GBP and THB.

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, 2021	December 31, 2020
EUR	5,117	4,308
USD	5,085	4,038
GBP	1,509	1,587
CNY	923	652
BRL	850	843
THB	684	530
CAD	398	284
MXN	119	30
Other	286	359
TOTAL	**14,971**	**12,631**

33.2.3 Interest rate risk

Net debt at December 31, 2021 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
THB	47	10	**57**	475	47	485	**532**	77	(77)	124	408	**532**
GBP	52	(4)	**48**	473	52	469	**521**	99	(99)	151	370	**521**
USD	1,267	310	**1,577**	(1,075)	206	296	**502**	589	(589)	795	(293)	**502**
MXN	2	(2)	**-**	496	2	494	**496**	165	(165)	167	329	**496**
CNY	37	(51)	**(14)**	319	37	268	**305**	164	(164)	201	104	**305**
EUR	4,994	(3,902)	**1,092**	(1,156)	6,055	(6,119)	**(64)**	(77)	77	5,978	(6,042)	**(64)**
Other currencies	117	(51)	**66**	468	117	417	**534**	217	(217)	334	200	**534**
Total before derivatives	**6,516**	**(3,690)**	**2,826**	**-**	**6,516**	**(3,690)**	**2,826**	**1,234**	**(1,234)**	**7,750**	**(4,924)**	**2,826**
Fair value of derivatives included in net debt			**(37)**				**(37)**					**(37)**
NET DEBT (NOTE 26)			**2,789**				**2,789**					**2,789**

The main reference rates to which the Group is exposed are Euribor and Libor.

Financial instruments that are backed by a benchmark rate subject to the 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, 2021:

		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	**(49)**	(22)	1	(513)	**(534)**
1-point increase	**49**	21	(1)	513	**533**

(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, 2021	December 31, 2020
Carrying amount (note 15.1)	279	229
IMPACT ON EQUITY OF A 10% UNFAVORABLE CHANGE IN THE PRICE OF EQUITIES HELD BY THE GROUP	**(22)**	**(19)**

33.2.5 Counterparty risk

At December 31, 2021, 68% of cash and cash equivalents (including cash management financial assets) 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, 2021, net receivable balances from the ten largest customers amounted to €496 million (2020: €398 million). Five of these customers are located in Europe and five in North America. At the same date, 69 customers (2020: 55) had been granted credit limits in excess of €10 million. Out of these, 29 are located in Europe, 26 in North America, two in Central America, seven in Asia and five in the Africa/India/Middle-East region. No material collateral has been received to limit the related credit risk. In 2021, credit losses represented 0.07% of sales (2020: 0.09%).

33.2.7 Commodities derivatives

In 2021, 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, 2021	December 31, 2020
Net debt (note 26)	2,789	3,531
Total equity	14,971	12,631
GEARING	**0.19**	**0.28**

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, 2021:

(in € millions)	FVTPL	FVOCI	Amortized cost	Total 2021
Trade receivables	-	-	3,576	3,576
Current financial assets	121	50	542	713
Cash and cash equivalents	3,698	-	784	4,482
Non-current financial assets	567	279	558	1,404
TOTAL FINANCIAL ASSETS	**4,386**	**329**	**5,460**	**10,175**

Non-current financial assets at fair value through profit or loss consist mainly of the Solesis preferred shares (note 4.1.1) and the escrow account related to UK pension plans (note 27.1.1)

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, 2021 and 2020 by level in the fair value measurement hierarchy:

(in € millions)	Level 1	Level 2	Level 3	Total 2021
Cash and cash equivalents	3,698	-	-	3,698
Current financial assets	74	97	-	171
Non-current financial assets	218	372	256	846
TOTAL ASSETS	**3,990**	**469**	**256**	**4,715**
Derivative instruments (note 16.2)	-	185	-	185
TOTAL LIABILITIES	**-**	**185**	**-**	**185**

(in € millions)	Level 1	Level 2	Level 3	Total 2020
Cash and cash equivalents	3,786	-	-	3,786
Current financial assets	22	52	-	74
Non-current financial assets	35	101	200	336
TOTAL ASSETS	**3,843**	**153**	**200**	**4,196**
Derivative instruments (note 16.2)	-	117	-	117
TOTAL LIABILITIES	**-**	**117**	**-**	**117**

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, 2021:

(in € millions)	
At January 1, 2021	**193**
Acquisitions	20
Disposals	(2)
Gains or losses for the year recognized in other comprehensive income	31
Other	6
AT DECEMBER 31, 2021	**248**

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 2021 based on 2020 net income of €0.8 million (2020 based on 2019 net income: €1.0 million). He was also awarded compensation of €1.2 million (payroll taxes included) as General Manager of Manufacture Française des Pneumatiques Michelin (2020: €1.1 million). The benefits that vested during the period in respect of a post-employment defined benefit plan amounted to €0.4 million (2020: €0.4 million). In addition, an expense of €0.3 million (2020: €0 million) was recognized in the Company's 2021 accounts, corresponding to performance shares granted to Florent Menegaux in respect of years after 2019.

A €0.2 million statutory distribution based on net income was paid in 2021 to Jean-Dominique Senard, Managing Chairman and General Partner of Compagnie Générale des Établissements Michelin until May 2019, corresponding to the balance of his 2018 compensation.

Yves Chapot received compensation of €1.7 million (payroll taxes included) in 2021 as General Manager of Compagnie Générale des Établissements Michelin (2020: €1.2 million). The benefits that vested during the period in respect of a post-employment defined benefit plan amounted to €0.4 million (2020: €0.4 million). A provision of €1.3 million (payroll taxes included) has been recognized based on the present value of the vested rights in a long-term incentive bonus program and a variable compensation program. In addition, an expense of €0.2 million (2020: €0 million) was recognized in the Company's 2021 accounts, corresponding to performance shares granted to Yves Chapot in respect of years after 2019.

At December 31, 2021, the Group Executive Committee had nine members (2020: eight members). Employee benefits costs for members of the Group Executive Committee break down as follows:

(in € millions)	2021	2020
Short-term and termination benefits	9.1	7.3
Post-employment benefits	1.6	1.9
Other long-term benefits	-	-
Share-based payments	2.3	1.7
COMPENSATION GRANTED TO MEMBERS OF THE GROUP EXECUTIVE COMMITTEE	**13.0**	**10.9**

The compensation paid in 2021 to the Supervisory Board members for 2020 was €0.7 million (2020 for 2019: €0.7 million).

NOTE 35 EVENTS AFTER THE REPORTING DATE

Redemption of convertible bonds due in January 2022

The Group redeemed the outstanding convertible bonds at maturity on January 10, 2022, for a nominal amount of $592 million.

No other 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	49.00
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
Cleantech Innovation Park GmbH	Equity method	Hallstadt	Miscellaneous	45.00

Companies	Consolidation method	Registered office	Type	% interest
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
Lehigh Spain, S.L.	Full consolidation method	Barcelona	Miscellaneous	100.00
Servicios y Asistencia OK24, S.L.	Full consolidation method	Madrid	Commercial	60.80
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

Companies	Consolidation method	Registered office	Type	% interest
Transityre France	Full consolidation method	Clermont-Ferrand	Commercial	100.00
Alliance Réseaux	Full consolidation method	Saint-Jean-de-Maurienne	Commercial	100.00
Michelin Travel Partner	Full consolidation method	Boulogne-Billancourt	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	53.67
MMM !	Full consolidation method	Paris	Miscellaneous	100.00
1 Pièce Cuisine SAS	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
Roadzila	Full consolidation method	Aix-en-Provence	Commercial	100.00
Watea SAS	Full consolidation method	Clermont-Ferrand	Commercial	100.00
Société Internationale de Plantations d'Hévéas	Equity method	Courbevoie	Miscellaneous	44.41
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	Élancourt	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
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

Companies	Consolidation method	Registered office	Type	% interest
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				
Michelin Finance (Luxembourg) S.à.r.l.	Full consolidation method	Luxembourg	Financial	100.00
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
Artic Investments S.A.	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
THE 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
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

Companies	Consolidation method	Registered office	Type	% interest
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
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
Cemat trading spol sro	Full consolidation method	Bohumín	Commercial	100.00
Ihle Czech, s.r.o.	Full consolidation method	Plzen	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
Michelin Travel Partner UK Limited	Full consolidation method	Stoke-on-Trent	Commercial	100.00
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 Pension Scheme Trustee Limited	Full consolidation method	Stoke-on-Trent	Miscellaneous	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

Companies	Consolidation method	Registered office	Type	% interest
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 ITS Limited	Full consolidation method	Aberford	Commercial	100.00
Masternaut Risk Solutions Limited	Full consolidation method	Marlow	Commercial	100.00
Old World Limited	Full consolidation method	London	Miscellaneous	100.00
Telefleet Limited	Full consolidation method	London	Miscellaneous	100.00
Easy Sailing Limited	Full consolidation method	Aberford	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
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
Nitor S.A.	Full consolidation method	Granges-Paccot	Financial	100.00
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 Global Mobility 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
Swissco Project S.A.	Equity method	Neuchâtel	Miscellaneous	20.00
Camso Schweiz AG	Full consolidation method	Schaffhouse	Commercial	100.00

Companies	Consolidation method	Registered office	Type	% interest
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	71.00
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
CAMEROON				
Société Moderne du Pneumatique Camerounais	Full consolidation method	Douala	Commercial	100.00
IVORY COAST				
Société Internationale de Plantations d'Hévéas	Equity method	Abidjan	Miscellaneous	18.00
UNITED ARAB EMIRATES				
Michelin AIM FZCO	Full consolidation method	Dubai	Miscellaneous	100.00
Dunlop Service Middle-East, LLC	Full consolidation method	Dubai	Manufacturing & commercial	49.00
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
NIGERIA				
Michelin Tyre Services Company Ltd.	Full consolidation method	Lagos	Commercial	95.48
SRI LANKA				
Camso Loadstar (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

Companies	Consolidation method	Registered office	Type	% interest
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				
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
Pelham 2 Corp.	Full consolidation method	Wilmington	Financial	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, Inc.	Full consolidation method	Harrisburg	Manufacturing & commercial	100.00
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 (Toledo), LLC	Full consolidation method	Columbus	Manufacturing & commercial	100.00
Solesis Holdings, LLC	Equity method	Charlotte	Miscellaneous	49.00
Mandals US, LLC	Full consolidation method	Dallas	Manufacturing & commercial	100.00
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
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

Companies	Consolidation method	Registered office	Type	% interest
MEXICO				
Michelin Sascar Mexico S.A. de C.V.	Full consolidation method	Querétaro	Commercial	100.00
Industrias Michelin, S.A. de C.V.	Full consolidation method	Querétaro	Manufacturing & 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
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
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
Transeals Pty Limited	Full consolidation method	Welshpool	Financial	100.00
Fenner Dunlop Australia Pty Limited	Full consolidation method	West Footscray	Manufacturing & commercial	100.00
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

Companies	Consolidation method	Registered office	Type	% interest
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
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	Equity method	Jakarta	Miscellaneous	49.07
PT Lestari Asri Jaya	Equity method	Jakarta	Miscellaneous	29.80
PT Multi Kusuma Cemerlang	Equity method	Jakarta	Miscellaneous	29.33
PT Wanamukti Wisasa	Equity method	Jakarta	Miscellaneous	23.22
PT Multistrada Arah Sarana Tbk	Full consolidation method	Bekasi	Manufacturing & commercial	99.64
PT Kawasan Industri Multistrada	Full consolidation method	Bekasi	Miscellaneous	99.60
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
Dunlop Conveyor Belting (Shanghai) Company Limited	Full consolidation method	Shanghai	Manufacturing & commercial	100.00
Shanghai Fenner Conveyor Belting Company Limited	Full consolidation method	Shanghai	Manufacturing & commercial	85.00
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	Kiev	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	462	34%	-	-	463	31%	-	-
▶ Fully consolidated subsidiaries	890	66%	3,796	100%	1,049	69%	3,382	100%
Sub-total	**1,352**	**100%**	**3,796**	**100%**	**1,512**	**100%**	**3,382**	**100%**
NON-AUDIT SERVICES								
▶ Issuer(1)	-	-	-	-	142	80%	-	-
▶ Fully consolidated subsidiaries(2)	71	100%	1,371	100%	36	20%	840	100%
Sub-total	**71**	**100%**	**1,371**	**100%**	**178**	**100%**	**840**	**100%**
TOTAL	**1,423**		**5,167**		**1,689**		**4,222**	

(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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