

## CREDIT OPINION

28 March 2024

Update



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### RATINGS

#### TRATON SE

Domicile	Germany
Long Term Rating	Baa2
Type	LT Issuer Rating - Fgn Curr
Outlook	Positive

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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## TRATON SE

### Credit opinion update

#### Summary

On March 18th, we affirmed the Baa2 rating of TRATON SE (TRATON) and changed the outlook to positive. The outlook change was prompted by the company's credit metrics improvements, primarily driven by an operating margin expansion, beyond historical levels. The EBITA margin, adjusted by Moody's, rose to 9.2% in 2023, a significant increase from 5.2% in 2022 and 3.5% in 2021. While the profitability improvements benefit from a cyclical upswing in the truck market, they are also a consequence of structural performance improvements. The group's performance improved through the realization of synergies and cost savings, including the advantages of a restructuring program at MAN and the integration of Navistar. Additionally, in 2023, TRATON managed to decrease its industrial gross debt by over €3 billion, thereby reducing its leverage. Sustained performance improvements could support further positive rating pressure over the next quarters.

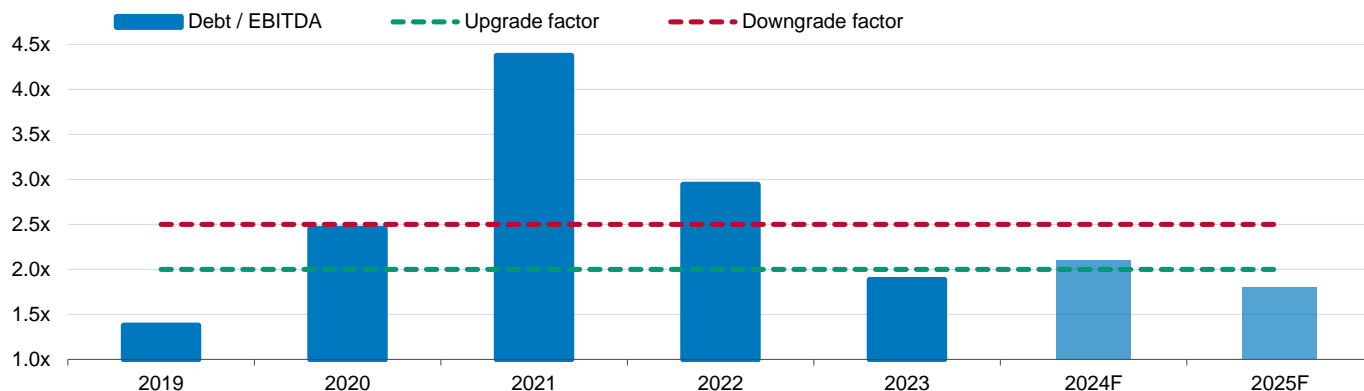
TRATON's operating performance last year was also boosted by favorable market conditions including market growth as well as favorable price and mix dynamics. After record sales last year, we expect market's unit sales to decline and increasing pricing pressure this year as market conditions normalize. The outlook change indicates that despite the challenging market conditions, we believe that an upgrade is likely providing that TRATON maintains its Moody's adjusted EBITA around 8%, its Moody's adjusted debt/EBITDA below 2x and positive free cash flow. The outlook change is further supported by the expectation that TRATON will maintain a conservative financial policy in particular regarding leverage and liquidity.

TRATON's rating is supported by (i) the group's strong market positions in Europe, North and South America in the heavy-duty truck segment, (ii) the expectation that TRATON will be able to maintain its profitability at around 8% (Moody's adjusted EBITA) even in more challenging market conditions, (iii) the company's commitment to preserve a capital structure in line with the requirements for a solid investment grade rating, as well as (iv) the ownership of its main shareholder [Volkswagen Aktiengesellschaft](#) (VW, A3 stable), which has provided liquidity support to TRATON and which is committed to remain a major shareholder.

Conversely, the rating is constrained by (i) the cyclical nature of the truck market, (ii) the group's focus on medium- and heavy-duty trucks and buses with no other diversifying business operations and (iii) high investment needs to manage the technological transformations towards zero emission vehicles and autonomous driving.

Exhibit 1

We expect TRATON's leverage to remain at the low end of the Baa2 range over the next 12-18 months



All figures and ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Periods are financial year-end unless indicated. Moody's forecasts are Moody's opinion and do not represent the views of the issuer.

Source: Moody's Financial Metrics™ and Moody's Ratings forecasts

## Credit strengths

- » Heavy- and Medium-Duty Truck brands with leading market positions in Europe, North America and South America
- » Conservative financial policy
- » Long-term commitment from and strategic importance to its major shareholder VW

## Credit challenges

- » Revenue concentration in the highly cyclical truck market
- » High investment needs to manage the technological transformations towards zero emission vehicles and autonomous driving
- » Some execution risks linked to the realization of the full potential of synergies

## Rating outlook

The positive outlook indicates that despite the more challenging market conditions ahead, we believe that an upgrade is likely providing that TRATON maintains its Moody's adjusted EBITA around 8%, its Moody's adjusted debt/EBITDA below 2x and positive free cash flow.

## Factors that could lead to an upgrade

TRATON's ratings could be upgraded in case of

- » EBITA margin of around 8% through the cycle;
- » Positive Free Cash Flow on a sustainable basis;
- » Debt/EBITDA (Moody's adjusted) consistently below 2.0x;
- » Building further track record of conservative financial policy including leverage and improvement of its liquidity position.

## Factors that could lead to a downgrade

TRATON's ratings could be downgraded in case of

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody.com> for the most updated credit rating action information and rating history.

- » EBITA margin sustainably below 6%;
- » Debt/EBITDA (Moody's adjusted) sustainably and materially above 2.5x;
- » Weakening liquidity profile;
- » Negative Free Cash Flow generation.

## Key indicators

Exhibit 2

### TRATON SE

(in € billions)	2019	2020	2021	2022	2023	2024F	2025F
Revenue	26.4	21.8	29.7	39.0	45.3	45.3	47.5
EBITDA Margin %	14.8%	10.4%	10.2%	10.6%	13.4%	12.0%	13.3%
EBITA Margin %	7.4%	1.5%	3.5%	5.3%	9.2%	7.8%	8.5%
EBITA / Interest Expense	16.2x	3.1x	4.9x	7.3x	9.3x	7.2x	8.2x
Debt / EBITDA	1.4x	2.5x	4.4x	2.9x	1.9x	2.1x	1.8x
RCF / Net Debt	801.9%	34.9%	13.0%	23.5%	36.8%	35.9%	50.4%
FCF / Debt	8.6%	-1.2%	2.6%	-11.8%	14.3%	5.4%	8.5%

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Source: Moody's Financial Metrics™ and Moody's Ratings forecasts

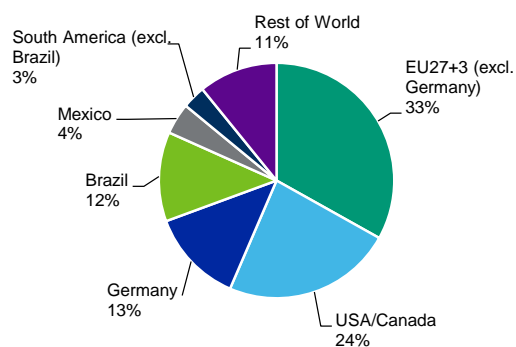
## Profile

Headquartered in Munich, Germany, TRATON SE (TRATON) is one of the world's largest manufacturer of medium- and heavy-duty trucks and buses sold under its strong brands Scania, MAN, Navistar and VW Truck Bus (VWTB). Moreover, TRATON offers customer financing solutions through its TRATON Financial Services subsidiary.

During 2023, TRATON's Industrial business (excl. financial services) generated revenues of €45.7 billion and a company-adjusted operating profit of €4.0 billion. TRATON has been listed on the Frankfurt and Stockholm stock exchange. [Volkswagen Aktiengesellschaft](#) is TRATON's main shareholder with a stake of around 89.7%.

Exhibit 3

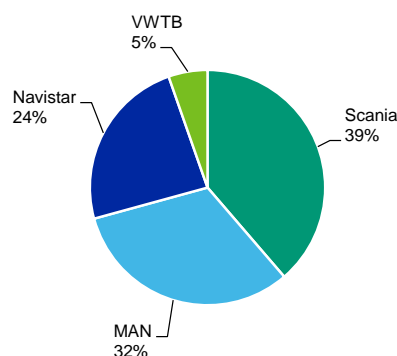
### TRATON Operations unit sales by geography (2023)



Source: Company

Exhibit 4

### TRATON Operations revenue by brand (2023)



Source: Company

## Detailed credit considerations

### "TRATON Way Forward" strategy aims to improve value creation and ESG profile

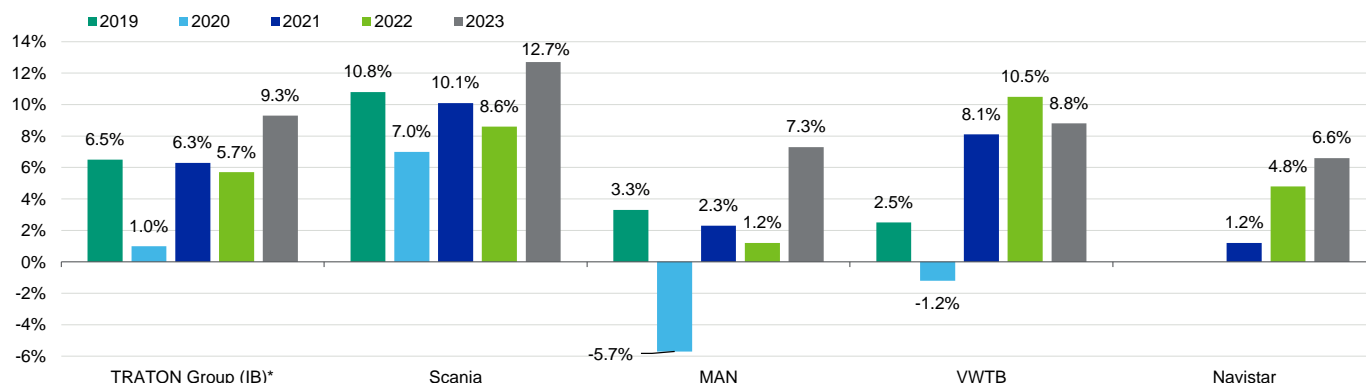
The "TRATON Way Forward" strategy is based on four building blocks, (1) responsible company, (2) value creation, and (3) TRATON accelerated. The fourth building block is execution. The first building block has a particular focus on decarbonisation and circularity, and aims to improve governance and ethics within the company. The second block has a focus on improving performance, including the integration of Navistar, and the achievement of distinctive target returns for the individual brands. The targets include benefits

from the MAN restructuring. It also includes an expansion in China, with Scania building a production site in the wider Shanghai region. TRATON intends to improve operating profit margins on the group level (8.6% in 2023 TRATON Operating Return on Sales, company-adjusted), targeting to reach an operating margin at Group level of 9% by 2024, which was included in the Global Champion Strategy already.

Exhibit 5

### Adjusted return on sales across brands

Based on segment return on sales in % for Industrial Business (excl. Financial Services)



Periods are financial year-end unless indicated.

\* TRATON introduced a new reporting structure in 2021. TRATON GROUP excluding "Financial Services" corresponds to the "TRATON Operations" business area including "Corporate Items", which represents the former Industrial Business segment from a financing perspective.

Source: Company

The third building block includes a focus on business model expansion, digitalisation and partnerships. It has also established procurement joint ventures in the North America and APAC regions, supply partnerships in the area of powertrain technologies and pursues certain joint R&D projects, for instance in the field of e-mobility. Increased collaboration between its group brands (Scania, MAN, Navistar and VWTB) and its alliance partners should also help to improve the targeted value creation.

### Recent track record of improved profitability, further identified synergy potential

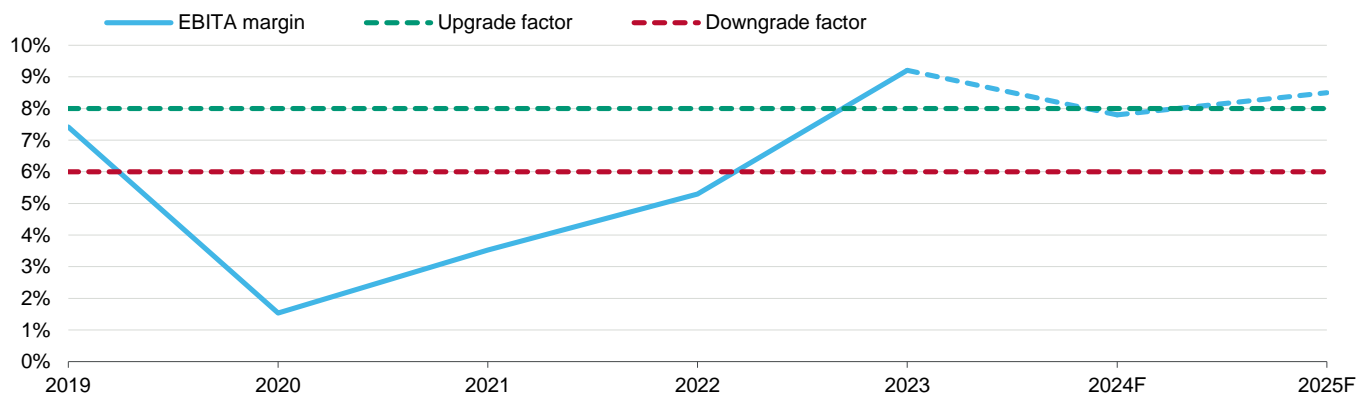
While TRATON's profitability used to be materially weaker than its higher rated peers, it has significantly improved during 2023. The EBITA margin, adjusted by Moody's, rose to 9.2% last year, a significant increase from 5.2% in 2022 and 3.5% in 2021. While the profitability improvements benefit from a cyclical upswing in the truck market, they are also a consequence of structural performance improvements. Structural performance improvements were driven by a strategic initiative aimed at boosting the group's performance through the realization of synergies and cost savings, also including the advantages of a restructuring program at MAN and the integration of Navistar.

TRATON has identified significant synergy potential among its operating units and is targeting long-term net cost savings driven by the TRATON Modular System. The first part of this will be the introduction of the common base engine (CBE) across TRATON's brands. Given the long life cycles of trucks, we believe that it will take up to ten years until the full potential of synergies can be realized. Moreover, the effects of the sizeable restructuring programme at MAN initially agreed in 2021 started to be visible last year as MAN reported a significant increase in margin. Further positive impact are expected in 2024.

After record sales last year, we expect market's unit sales to decline and increasing pricing pressure this year as market conditions normalize. As a result, we forecast TRATON's margin to slightly come down but to remain at healthy level around 8% (Moody's adjusted EBITA margin) over the next 12-18 months.

Exhibit 6

**TRATON's profitability has significantly improved in 2023 and is expected to remain around 8% (Moody's adjusted EBITA) over the next 12-18 months**



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Source: Moody's Financial Metrics™ and Moody's Ratings forecasts

### Volkswagen as major shareholder is supportive to TRATON's ratings

Since the floating of 10.3% of TRATON's shares on the stock market in June 2019, VW has remained TRATON's main shareholder with 89.7% of shares and voting rights. We assume that VW will remain the dominant shareholder with a stake of clearly above 50%. This is positively reflected in TRATON's rating, as VW has continuously provided liquidity support to TRATON.

### Conservative financial policy

TRATON's financial policy is overall conservative but has been challenged by the debt-funded acquisition of Navistar in July 2021. TRATON's dividend policy with a targeted pay-out ratio of 30% to 40% of net income is well in line with industry peers. The proposed dividend payment of €750 million for 2023 (to be paid in 2024) translates to a payout ratio of 31%. We expect TRATON to continue following a payout ratio in line with its dividend guidance.

At the end of 2023, TRATON's debt (Moody's adjusted; Industrial Business only) amounted to €11.4 billion, down by €3 billion compared to end of 2022. On a Moody's adjusted basis, TRATON's debt/EBITDA amounted to 1.9x, an improvement compared to 3.6x at the end of 2022 and even 4.4x at the end of 2021. This decrease in leverage was mainly driven by a material improvement of TRATON's EBITDA (Moody's adjusted). For the next 12-18 months, we expect leverage to remain around 2.0x which is the low end of the 2.0x-2.5x range commensurate with the Baa2.

We do not expect a sizeable reduction of debt levels given TRATON's sizeable growth and technology investments planned (including the expansion in China). In the years 2017-21, TRATON's free cash flow was in a low to mid three-digit million € area, reflective of lower levels of profitability. In 2022, there was a negative free cash flow of €1.2 billion (Moody's adjusted), driven by the one-off payment of an antitrust fine for Scania. For 2023, TRATON generated €1.6 billion Moody's adjusted free cash flow. For the next 12-18 months, we expect free cash flow (Moody's adjusted) between €500 million and €1 billion annually.

### Exposure to the highly cyclical and competitive truck market

While we acknowledge that 21% of the group's industrial revenue is generated through its Services and Parts business which is typically less cyclical, TRATON's substantial exposure to the highly competitive and cyclical market for medium- and heavy-duty trucks is a constraining factor to the rating.

From a global market perspective, sales of heavy commercial vehicles, excluding China, will contract in 2024 after climbing 8.8% last year to 2.1 million units — exceeding pre-pandemic levels. The strong growth in 2023 was fueled by aging truck fleets and pent-up demand from the pandemic, combined with an easing of supply chain constraints that allowed manufacturers to convert high order backlogs into sales. In 2022, production and sales were diminished by the semiconductor shortages and disruption of wiring harness supplies from Ukraine. After record sales last year, we expect a unit sales decline this year as market conditions normalize. Over the

last several months, manufacturers started to report declining orders and reduced lead times to more normal levels, which are the first evidence of an upcoming market adjustment.

Exhibit 7

### Heavy commercial vehicle sales (ex-China) to decline by 5% in 2024 as market conditions normalize

Global heavy commercial vehicle unit sales (thousand units)

	2018	2019	2020	2021	2022	2023	+/- %	2024E	+/- %	2025E	+/- %
<b>Americas</b>	<b>702</b>	<b>757</b>	<b>596</b>	<b>688</b>	<b>708</b>	<b>738</b>	<b>4.2%</b>	<b>697</b>	<b>-5.6%</b>	<b>739</b>	<b>6.0%</b>
USA	512	548	425	477	493	528	7.2%	475	-10.1%	510	7.4%
Canada	54	53	46	43	43	46	7.9%	44	-4.6%	46	4.5%
Mexico	29	26	17	18	22	27	22.5%	30	12.6%	30	0.0%
Argentina	21	12	11	15	15	15	-0.2%	15	2.5%	16	6.7%
Brazil	87	117	99	136	136	123	-9.9%	133	8.2%	137	3.0%
<b>EMEA</b>	<b>540</b>	<b>541</b>	<b>431</b>	<b>520</b>	<b>530</b>	<b>637</b>	<b>20.3%</b>	<b>551</b>	<b>-13.6%</b>	<b>574</b>	<b>4.2%</b>
Western Europe	327	336	251	275	280	331	18.2%	283	-14.5%	295	4.2%
Germany	92	95	71	76	74	92	24.3%	79	-13.7%	82	3.8%
Italy	28	26	21	27	28	32	16.8%	26	-19.6%	27	3.8%
France	60	62	47	51	49	56	13.3%	47	-15.9%	49	4.3%
UK	49	52	34	39	42	49	15.2%	42	-13.9%	44	4.8%
Spain	26	27	20	22	25	30	22.3%	25	-17.5%	26	4.0%
Other Western Europe	72	76	56	61	62	72	16.1%	64	-11.5%	67	4.7%
Eastern Europe	186	176	157	217	219	274	24.9%	235	-14.1%	245	4.3%
Africa	27	29	23	27	31	33	6.4%	33	1.5%	34	3.0%
<b>APAC</b>	<b>2,288</b>	<b>2,112</b>	<b>2,269</b>	<b>2,213</b>	<b>1,506</b>	<b>1,817</b>	<b>20.6%</b>	<b>1,963</b>	<b>8.1%</b>	<b>2,039</b>	<b>3.9%</b>
China	1,476	1,455	1,882	1,669	856	1,130	32.0%	1,260	11.5%	1,320	4.8%
India	500	367	168	286	399	435	9.1%	443	2.0%	452	2.0%
Japan	97	99	90	86	58	70	20.1%	75	7.1%	77	2.7%
Other APAC	216	191	129	172	193	182	-5.8%	185	1.8%	190	2.7%
<b>Global</b>	<b>3,570</b>	<b>3,456</b>	<b>3,331</b>	<b>3,466</b>	<b>2,796</b>	<b>3,240</b>	<b>15.9%</b>	<b>3,261</b>	<b>0.7%</b>	<b>3,402</b>	<b>4.3%</b>
Previous estimate (June 2023)						3,063	9.6%	3,266	6.6%		
<b>Global ex China</b>	<b>2,095</b>	<b>2,000</b>	<b>1,449</b>	<b>1,797</b>	<b>1,940</b>	<b>2,110</b>	<b>8.8%</b>	<b>2,001</b>	<b>-5.1%</b>	<b>2,082</b>	<b>4.0%</b>
Previous estimate (June 2023)						2,038	5.1%	2,066	1.4%		

Heavy Commercial Vehicles include Trucks of more than 6 tonnes GVW, buses, and coaches (except in US/Canada).

Source: LMC Automotive and Moody's Ratings estimates, Moody's Ratings forecast as of 20 February 2024

### Technology transformation towards zero emission vehicles and autonomous driving requires high investments

Truck markets globally undergo substantial technological transformation in terms of propulsion systems, which transit from internal combustion engines (ICEs) to zero emission vehicles (ZEVs). ZEVs are battery-electric vehicles (BEVs) and fuel cell electric vehicles (FCEV). This trend is driven by stricter environmental regulation to reduce carbon emissions in all major markets. The other main technology trend is towards autonomous driving, which allows substantial cost reductions for the drivers of commercial vehicles.

In terms of ZEVs, TRATON has a clear focus on BEVs, where all its major brands, Scania, MAN, Navistar and VWTB, have developed products and sold a total of 2,107 units in 2023 up from 1,740 units in 2022 and 1,076 units sold in 2021. While vans were dominating the BEV portfolio in 2021, 2022 and 2023 saw a more balanced contribution from trucks, buses, and vans. BEV sales were still below 1% of TRATON's unit sales, but we expect the BEV share to grow materially throughout the decade, especially in the area of vans, busses and medium duty trucks (shorter distance). TRATON has already spent sizeable investments into BEVs, and we expect that investments – especially into R&D – will remain high over the next years to improve technologies to extend the range and energy efficiency as well as support the build-up of charging infrastructure.

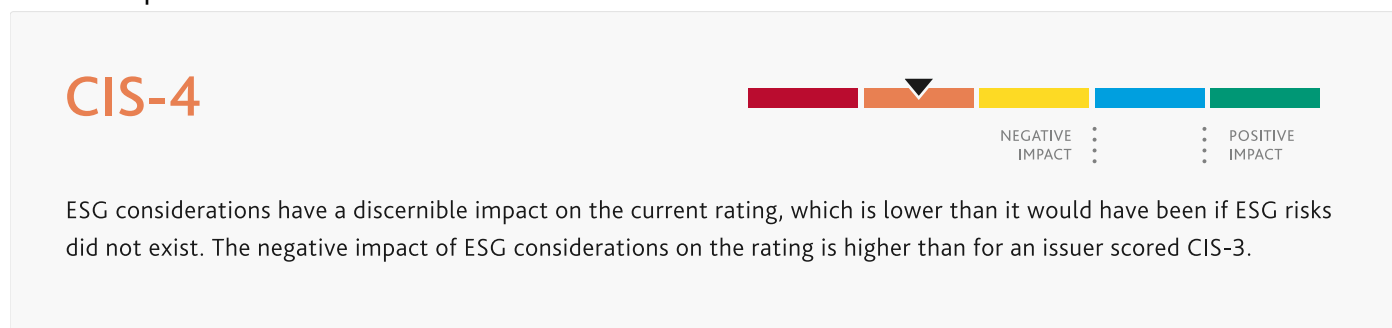
TRATON has only minor FCEV developments (such as at Scania for Switzerland), given the relatively low energy efficiency compared to BEVs. However, FCEVs could be needed especially for long-distance heavy duty trucks, once economics improve. Whilst related technologies could be bought from suppliers once FCEVs are gaining market share, there is a risk that TRATON might lose market share versus competitors like AB Volvo and Daimler Truck, which are developing this technology.

The other main technological transformation in the truck market is towards advanced driving assistance systems and autonomous driving. We expect that the launch of related features will be a main driver for unit sales and revenues in the medium to long term, because of the substantial efficiency gains, which customers (such as transportation companies) have in terms of lowering personal expenses for drivers, higher safety standards/avoidance of accidents and improved utilization of vehicles due to lower standstill times for pauses of drivers. The technological transformation will, however, require ongoing high investments into R&D, which will weigh on profitability and cash flows in the next couple of years.

### ESG considerations

#### TRATON SE's ESG credit impact score is CIS-4

Exhibit 8  
ESG credit impact score



Source: Moody's Ratings

TRATON's **CIS-4** indicates the rating is lower than it would have been if ESG risk exposures did not exist. The main ESG risks relate to carbon transition and the high costs to manage it, and to company's relatively weak governance, which are both constraints to the rating.

Exhibit 9  
ESG issuer profile scores



Source: Moody's Ratings

### Environmental

TRATON's **E-4** is driven by Carbon Transition, which is a risk for the global transportation sector in terms of stricter environmental regulation and the trend towards low and zero emission vehicles, and related cost for truck makers to make their product portfolio compliant with stricter standards. As an example, EU emission regulation for trucks currently requires a 15% cut by 2025 and a 30% cut by 2030, both versus the 2020 benchmark. There is a risk that these targets might be further tightened as a consequence of the EC's plan to cut CO2 emissions to 55% by 2030. TRATON has, however, taken actions by developing and successfully launching

electrified trucks and investing sizeable amounts into future technologies with a focus on BEVs that can mitigate risk exposure over time if uptake is successful and technology can be deployed without pressure on profit margins.

### Social

TRATON's **S-4** is driven by industry-level Responsible Production risks. Global supply chains are highly complex and requirements for vehicle product quality and safety are very high. The truck manufacturing process has moderate health & safety risks. Human capital risks are overall moderate, but reflect the typically high degree of unionization in the truck manufacturing industry, which leads to heightened strike risks, and challenges to retain highly skilled workers and engineers to ensure high quality standards of the manufacturing process and to keep pace with technological change.

### Governance

TRATON's **G-3** reflects the fact that management turnover has been historically relatively high for TRATON but has improved recently. Governance risks also relate to the company's board structure and policies, as these have to reflect the influence of various strong stakeholders, including Volkswagen AG as majority shareholder and the workers' unions. TRATON has been stock market listed since 2019 and has established an independent, state of the art organizational structure. In terms of compliance risks, we note that TRATON's subsidiary Scania discovered corruption issues in India during 2013-2017. Moreover, in February 2022, the General Court of the EU decided that Scania has to pay a fine of €881 million for antitrust issued during 1997 and 2011. We understand that TRATON has implemented stricter compliance standards to minimize governance risks going forward, in line with the strict governance rules of the Volkswagen Group. TRATON's governance is supported by a conservative Financial Strategy and Risk Management.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moody's.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

### Liquidity analysis

TRATON's liquidity relies heavily on support from its parent company VW, a key credit weakness.

As of December 2023, TRATON's sources of liquidity included cash and cash equivalent of €1.7 billion at group level, marketable securities of around €400 million and access to a fully available €4.5 billion revolving credit facility maturing in December 2028. Together with funds from operations that we estimate at around €5 billion for 2024, total cash sources amount to around 12 billion.

Further liquidity needs include working cash (estimated at around €1.4 billion or 3% of revenue), capex (including capital development costs and leases repayment) of around €3 billion annually, working capital outflows of around €600 million as well as dividend payments. In our theoretical scenario of no access to the capital markets for its manufacturing and financial services activities, uses of liquidity includes upcoming debt maturities, including from financial services, amounting to €7.6 billion in 2024 and another €5.9 billion in 2025. The company already issued around €2.6 billion new debt in Q1 2024 to cover for upcoming debt maturities.

As a result, TRATON heavily relies on continued liquidity support from the parent company VW, which provides sizeable credit facilities to TRATON, in a framework agreement totaling €4 billion out of which €3.5 billion were available at December 2023.



## Rating methodology and scorecard factors

The principal methodology used for this rating was the Global Manufacturing Companies rating methodology. Please see the Rating Methodologies page on [www.moodys.com](http://www.moodys.com) for a copy of this methodology.

Both the historic and forward scorecard-indicated outcome map to a A3, two notches above the actual rating assigned. The difference is explained by inherent volatility of TRATON's end markets, and the relatively low margins.

Exhibit 10

### Rating factors

TRATON SE

Manufacturing Industry Scorecard			Current FY Dec-23		Moody's 12-18 month forward view	
Factor 1 : Scale (20%)	Measure	Score	Measure	Score		
a) Revenue (\$ billions)	49.0	Aa	50 - 55	Aaa		
<b>Factor 2 : Business Profile (25%)</b>						
a) Business Profile	Baa	Baa	Baa	Baa		
<b>Factor 3 : Profitability and Efficiency (5%)</b>						
a) EBITA Margin	9.2%	Ba	8% - 8.5%	Ba		
<b>Factor 4 : Leverage and Coverage (35%)</b>						
a) Debt / EBITDA	1.9x	Baa	1.8x - 2x	Baa		
b) Retained Cash Flow / Net Debt	36.8%	A	35% - 50%	A		
c) Free Cash Flow / Debt	14.3%	Baa	5% - 10%	Ba		
d) EBITA / Interest Expense	9.3x	Baa	7x - 9x	Baa		
<b>Factor 5 : Financial Policy (15%)</b>						
a) Financial Policy	Baa	Baa	Baa	Baa		
<b>Rating:</b>						
a) Scorecard-Indicated Outcome		A3		A3		
b) Actual Rating Assigned						(P)Baa2

All figures and ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Moody's forecasts are Moody's opinion and do not represent the views of the issuer.

Source: Moody's Financial Metrics™ and Moody's Ratings forecasts

## Appendix

Exhibit 11

Peer comparison  
TRATON SE

(in \$ millions)	TRATON SE (P)Baa2 Positive			PACCAR Inc A1 Stable			AB Volvo A2 Stable			Daimler Truck AG A3 Stable			CNH Industrial N.V. Baa2 Stable		
	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	
	Dec-21	Dec-22	Dec-23	Dec-21	Dec-22	Dec-23	Dec-21	Dec-22	Dec-23	Dec-21	Dec-22	Dec-23	Dec-21	Dec-22	Dec-23
Revenue	35,088	41,147	48,969	21,835	27,314	33,316	42,111	45,633	50,297	45,718	51,839	57,547	17,802	21,541	22,080
EBITDA	3,574	4,360	6,561	2,167	3,507	5,514	5,875	5,646	7,390	3,444	4,529	6,991	2,140	2,938	3,255
Total Debt	15,030	12,996	12,635	288	241	280	3,642	3,643	3,137	3,202	795	747	5,924	4,549	4,461
Cash & Cash Equivalents	2,368	1,375	1,639	4,813	6,159	8,659	6,565	7,294	7,825	7,711	7,030	9,207	4,386	3,802	3,532
EBITDA margin %	3.5%	5.3%	9.2%	8.6%	11.6%	15.3%	10.8%	9.6%	12.2%	5.3%	6.9%	10.3%	10.5%	12.4%	13.4%
EBITDA / Interest Expense	4.9x	7.3x	9.3x	423.1x	411.7x	541.3x	33.3x	26.7x	34.1x	13.9x	13.2x	25.3x	9.1x	11.1x	9.6x
Debt / EBITDA	4.4x	2.9x	1.9x	0.1x	0.1x	0.1x	0.7x	0.7x	0.4x	1.0x	0.2x	0.1x	2.8x	1.5x	1.4x
RCF / Net Debt	13.0%	23.5%	36.8%	-41.2%	-43.7%	-45.0%	36.3%	-59.7%	-84.5%	-58.0%	-60.7%	-53.4%	170.5%	258.1%	156.4%
FCF / Debt	2.6%	-11.8%	14.3%	318.6%	620.7%	705.2%	-71.0%	15.9%	43.8%	26.2%	219.6%	283.4%	43.4%	25.1%	21.6%

All figures and ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Source: Moody's Financial Metrics™

Exhibit 12

Moody's-adjusted debt reconciliation  
TRATON SE

(in € millions)	2019	2020	2021	2022	2023
<b>As reported debt</b>	<b>3,641</b>	<b>3,718</b>	<b>9,700</b>	<b>10,400</b>	<b>9,600</b>
Pensions	1,759	1,817	2,636	1,777	1,838
Non-Standard Adjustments	-	-	881	-	-
<b>Moody's-adjusted debt</b>	<b>5,400</b>	<b>5,535</b>	<b>13,217</b>	<b>12,177</b>	<b>11,438</b>

All figures and ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Periods are financial year-end unless indicated.

Source: Moody's Financial Metrics™

Exhibit 13

Moody's-adjusted EBITDA reconciliation  
TRATON SE

(in € millions)	2019	2020	2021	2022	2023
<b>As reported EBITDA</b>	<b>4,345</b>	<b>2,462</b>	<b>3,319</b>	<b>4,582</b>	<b>6,521</b>
Pensions	(1)	(1)	(5)	(5)	(7)
Capital Development Costs	(467)	(316)	(468)	(604)	(687)
Unusual Items	43	112	175	164	240
<b>Moody's-adjusted EBITDA</b>	<b>3,920</b>	<b>2,257</b>	<b>3,021</b>	<b>4,137</b>	<b>6,067</b>

All figures and ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Periods are financial year-end unless indicated.

Source: Moody's Financial Metrics™

## Ratings

Exhibit 14

Category	Moody's Rating
<b>TRATON SE</b>	
Outlook	Positive
Issuer Rating	Baa2
Senior Unsecured MTN	(P)Baa2
ST Issuer Rating	P-2
<b>PARENT: VOLKSWAGEN AKTIENGESELLSCHAFT</b>	
Outlook	Stable
Issuer Rating	A3
Sr Unsec Bank Credit Facility -Dom Curr	A3
Senior Unsecured MTN -Dom Curr	(P)A3
Commercial Paper -Dom Curr	P-2
<b>TRATON FINANCE LUXEMBOURG S.A.</b>	
Outlook	Positive
Bkd Senior Unsecured	Baa2

Source: Moody's Ratings

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