

Tesla (TSLA.O/TSLA US)

Technological edge unchanged; earnings tamed in 2024F

Neutral · Downgrade

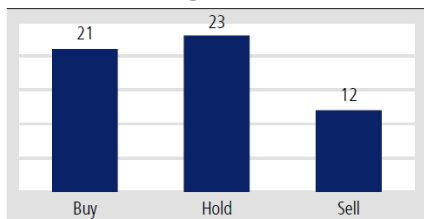
Price as of January 24 (US\$)	207.8
3M target price (US\$)	209
12M target price (US\$)	213
Previous target price (US\$)	309
Revised down (%)	31.1
Upside (%)	2.5

Trading data

Mkt cap (US\$bn)	660.7
Outstanding shares (mn)	3,179
Institutional ownership (%)	46.3
3M avg. daily trading (mn)	116.5
52-week trading range (US\$)	138.1-299.3

Performance	3M	6M	12M
Absolute (%)	(2.2)	(21.7)	43.9
Relative (%)	(18.4)	(28.2)	22.7

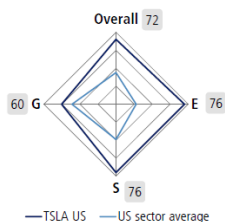
Consensus rating



12M street target price	Low	Average	High
Target price (US\$)	24	232	350
Return potential (%)	(88.3)	11.6	68.4

Source: Bloomberg

ESG score card



Source: Refinitiv, KGI securities

Event

Tesla reported 4Q23 non-GAAP EPS of US\$0.71, up 7% QoQ but down 40% YoY.

Impact

4Q23 EPS slightly missed with gross margin down QoQ. 4Q23 revenue arrived up 8% QoQ and 3% YoY at US\$25.2bn, 2.6% below consensus. Automotive sales grew 10% QoQ to US\$21.6bn, reflecting 11% QoQ growth in EV deliveries, despite a 1% QoQ drop in vehicle ASP to US\$43.6k, while non-automotive revenue was down 3% QoQ, to 14% of total revenue. Automotive gross margin slightly improved 0.2ppts to 18.9% in 4Q23, supported by improving scale and a further cost reduction, to US\$36.1k per vehicle. Nevertheless, overall gross margin was down 0.3ppts QoQ to 17.6% in 4Q23, on falling QoQ profitability for energy and service businesses. 2023 EPS dropped 23% to US\$3.12, marked by operating margin erosion of 7.6ppts YoY, to 9.2%, due to price cuts and growing R&D expenses.

We trim 2024F vehicle deliveries to 2mn; 2024-25F EPS cut to US\$2.36 & US\$4.68. Tesla guides the volume growth rate in 2024F will be noticeably lower than the 38% growth rate achieved in 2023, as the firm is currently between two major growth waves. The next growth wave will be next-generation vehicles, which the firm expects to begin production at Gigafactory Texas toward the end of 2025F. We trim 2024F vehicle delivery estimates to 2mn, up 11% YoY, but raise 2024F Cybertruck deliveries to 56k, as the firm is focused on ramping up production to meet demand. Tesla further lowered Model 3 and Y prices at the beginning of 2024. We revise down 2024F sales to US\$101.2bn, up 5% YoY, and gross margin to 17.3%, down 0.9ppts YoY, resulting in a 2024F EPS decline of 24% YoY to US\$2.36. While we foresee gross margin pressure easing when interest rates fall, likely starting in 2H24, R&D investments and ramp up of next-generation vehicles could weigh on gross margin recovery before 2H25F. As a result, we cut 2025F EPS to US\$4.68.

Investments in next generation vehicles, AI, & robotics continue to sustain global technology leadership. The firm guides 2024 capex of over US\$10bn, compared with US\$8.9bn in 2023. The management guides release of a new self-driving software version, FSD V12, in 2024, with a major change from a rules-based to a network-path-based AI algorithm. Furthermore, shipment of Optimus robots is likely to start in 2025, which use Tesla-designed actuators and sensors, and have improved AI capabilities. Despite macro headwinds, Tesla is not slowing down on investments which will fuel future growth and sustain its technology leadership. While we are positive on the firm's long term outlook, based on its technology investments, the sales contribution from FSD and robotics is not likely to be meaningful in the next two years.

Valuation & Action

We downgrade our rating from Outperform to Neutral and cut our 12M target price from US\$309 to US\$213, based on 40x 2025-26 average EPS of US\$5.33. Shares lack near term catalysts, yet we see bargain hunting opportunities in the next three quarters, and expected catalysts of rate cuts and Tesla events.

Risks

Aggressive pricing strategy weighs on profitability.

Key financials

	Dec-22A	Dec-23F	Dec-24F	Dec-25F	Dec-26F
Revenue (US\$m)	81,462	96,773	101,233	126,674	151,851
Gross profit (US\$m)	20,853	17,660	17,558	27,787	34,241
Operating profit (US\$m)	13,656	8,891	7,700	17,660	23,020
EBITDA (US\$m)	17,403	13,558	12,304	43,311	47,151
Net profit (US\$m)	14,116	10,882	8,243	16,332	20,866
EPS (US\$)	4.07	3.12	2.36	4.68	5.98
Revenue growth (%)	51.4	18.8	4.6	25.1	19.9
EPS growth (%)	80.1	(23.3)	(24.4)	98.1	27.8
Gross margin (%)	25.6	18.2	17.3	21.9	22.5
Operating margin (%)	16.8	9.2	7.6	13.9	15.2
EBITDA margin (%)	21.4	14.0	12.2	34.2	31.1
Net debt to equity (%)	Net cash	Net cash	Net cash	Net cash	Net cash
Return on average equity (%)	27.4	23.6	9.3	16.8	17.7

Source: Company data, KGI Research estimates

Figure 1: Breakdown of 4Q23 results and 1Q24 forecast revisions vs. consensus

US\$m	4Q23						1Q24F							
	Actual	KGI	Diff. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)
Revenue	25,167	24,611	2.3	7.8	3.5	25,847	(2.6)	23,598	25,756	(8.4)	(6.2)	1.2	26,554	(11.1)
Gross profit	4,438	4,586	(3.2)	6.2	(23.2)	4,666	(4.9)	3,558	4,937	(27.9)	(19.8)	(21.1)	4,977	(28.5)
Operating profit	2,064	2,248	(8.2)	17.0	(47.1)	2,298	(10.2)	1,174	2,542	(53.8)	(43.1)	(55.9)	2,661	(55.9)
Net income	2,484	2,586	(3.9)	7.3	(40.0)	2,614	(5.0)	1,426	2,734	(47.9)	(42.6)	(51.4)	2,861	(50.2)
EPS (US\$)	0.71	0.74	(3.9)	7.4	(40.4)	0.73	(2.8)	0.41	0.78	(47.8)	(42.6)	(51.8)	0.80	(49.1)
Gross margin (%)	17.6	18.6	(1.0) ppts	(0.3) ppts	(6.1) ppts	18.1	(0.4) ppts	15.1	19.2	(4.1) ppts	(2.6) ppts	(4.3) ppts	18.7	(3.7) ppts
Op. margin (%)	8.2	9.1	(0.9) ppts	0.6 ppts	(7.8) ppts	8.9	(0.7) ppts	5.0	9.9	(4.9) ppts	(3.2) ppts	(6.4) ppts	10.0	(5.0) ppts
Net margin (%)	9.9	10.5	(0.6) ppts	(0.0) ppts	(7.2) ppts	10.1	(0.2) ppts	6.0	10.6	(4.6) ppts	(3.8) ppts	(6.5) ppts	10.8	(4.7) ppts

Source: Bloomberg; KGI Research

Figure 2: Breakdown of 2023 results and 2024-25 forecast revisions vs. consensus

US\$m	2023						2024F						2025F					
	Actual	KGI	Diff. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)
Revenue	96,773	96,217	0.6	18.8	97,558	(0.8)	101,233	117,079	(13.5)	4.6	117,722	(14.0)	126,674	154,255	(17.9)	25.1	145,169	(12.7)
Gross profit	17,660	17,808	(0.8)	(15.3)	17,953	(1.6)	17,558	23,530	(25.4)	(0.6)	22,949	(23.5)	27,787	35,563	(21.9)	58.3	30,432	(8.7)
Operating profit	8,891	9,075	(2.0)	(34.9)	9,418	(5.6)	7,700	13,613	(43.4)	(13.4)	12,840	(40.0)	17,660	25,081	(29.6)	129.3	18,942	(6.8)
Net income	10,884	10,988	(0.9)	(23.0)	10,489	3.8	8,243	13,982	(41.0)	(24.3)	12,994	(36.6)	16,332	23,604	(30.8)	98.1	18,453	(11.5)
EPS (US\$)	3.12	3.15	(1.0)	(23.3)	3.08	1.4	2.36	4.00	(41.0)	(24.4)	3.81	(38.0)	4.68	6.76	(30.8)	98.1	5.24	(10.7)
Gross margin (%)	18.2	18.5	(0.3) ppts	(7.3) ppts	18.4	(0.2) ppts	17.3	20.1	(2.8) ppts	(0.9) ppts	19.5	(2.1) ppts	21.9	23.1	(1.1) ppts	4.6 ppts	21.0	1.0 ppts
Op. margin (%)	9.2	9.4	(0.2) ppts	(7.6) ppts	9.7	(0.5) ppts	7.6	11.6	(4.0) ppts	(1.6) ppts	10.9	(3.3) ppts	13.9	16.3	(2.3) ppts	6.3 ppts	13.0	0.9 ppts
Net margin (%)	11.2	11.4	(0.2) ppts	(6.1) ppts	10.8	0.5 ppts	8.1	11.9	(3.8) ppts	(3.1) ppts	11.0	(2.9) ppts	12.9	15.3	(2.4) ppts	4.8 ppts	12.7	0.2 ppts

Source: Bloomberg; KGI Research

Figure 3: Breakdown of 2023 result and 2024-25 delivery forecast revisions

Unit	2023				2024F				2025F			
	Actual	Previous	Chg. (%)	YoY (%)	Revision	Previous	Chg. (%)	YoY (%)	Revision	Previous	Chg. (%)	YoY (%)
Total	1,808,581	1,797,774	0.6	37.7	2,001,800	2,235,300	(10.4)	10.7	2,356,000	2,910,250	(19.0)	17.7
Model S/X	68,774	64,405	6.8	3.1	75,000	74,500	0.7	9.1	74,000	74,000	0.0	(1.3)
Model 3/Y	1,739,707	1,733,169	0.4	39.5	1,870,000	2,118,000	(11.7)	7.5	2,040,000	2,519,250	(19.0)	9.1
Model 2	0	0	-	-	0	0	-	-	20,000	95,000	(78.9)	-
Cybertruck	100	100	0.0	-	56,000	42,000	33.3	55,900	220,000	220,000	0.0	292.9
Semi	0	100	(100.0)	-	800	800	0.0	-	2,000	2,000	0.0	150.0

Source: KGI Research

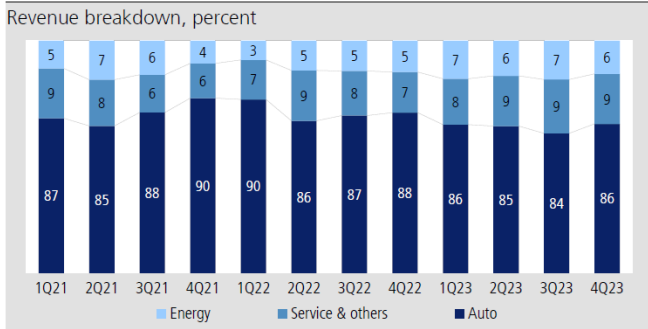
Figure 4: Breakdown of auto business forecasts

	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24F	2Q24F	3Q24F	4Q24F
EV shipments (k units)	184.9	201.3	241.4	308.7	310.0	254.7	343.8	405.3	422.9	466.1	435.1	484.5	481.0	494.0	505.3	521.5
Automotive revenue (US\$m)	8,484	9,854	11,778	15,653	16,182	14,258	18,406	20,840	19,442	20,986	19,071	21,130	19,225	20,044	21,321	22,444
ASP (US\$)	45.9	49.0	48.8	50.7	52.2	56.0	53.5	51.4	46.0	45.0	43.8	43.6	40.0	40.6	42.2	43.0
Cost per vehicle (US\$)	35.8	36.3	34.7	35.9	36.5	41.3	39.2	38.9	37.3	36.9	36.7	36.1	34.4	34.4	34.6	34.6
Automotive gross margin (%)	22.0	25.8	28.8	29.2	30.0	26.2	26.8	24.3	19.0	18.1	16.3	17.2	13.9	15.1	18.1	19.6

Note: All data excludes regulatory credits

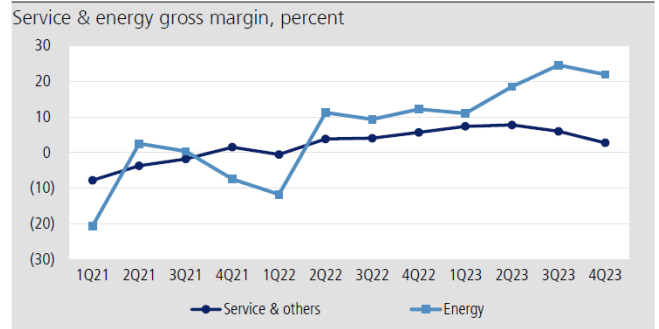
Source: Company data; KGI Research

Figure 5: Revenue breakdown



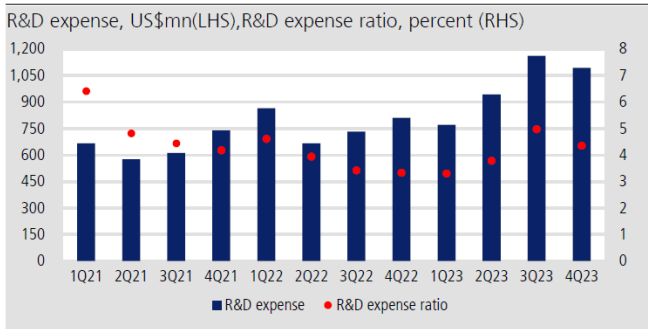
Source: Company data; KGI Research

Figure 6: Service & energy gross margin



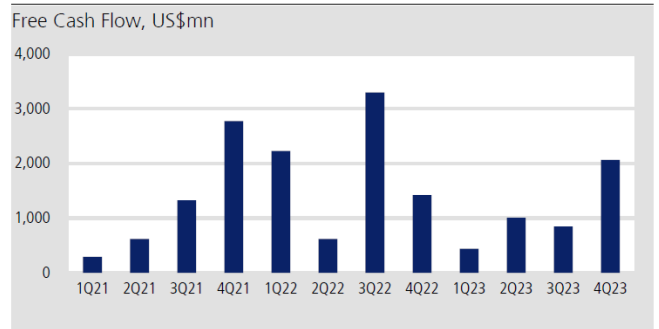
Source: Company data; KGI Research

Figure 7: R&D expenses



Source: Company data; KGI Research

Figure 8: Free cash flow

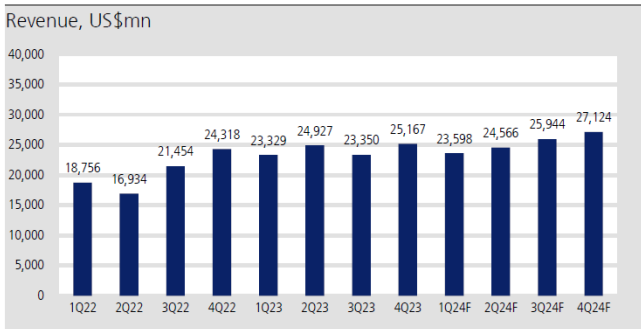


Source: Company data; KGI Research

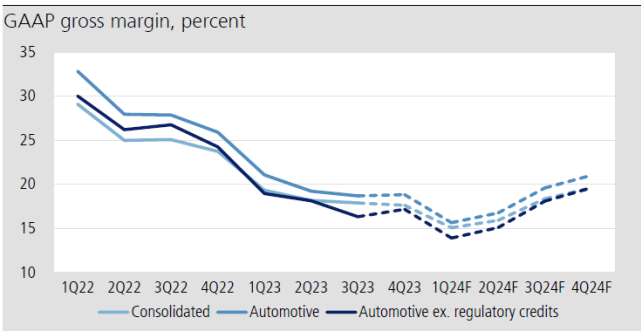
Figure 9: Company profile

Established in 2003, Tesla was a dedicated electric vehicle maker before entering the solar business after acquiring SolarCity (US) in November 2016. As of 2022, Tesla was the second-largest EV vendor worldwide with sales of 1.31mn units, representing a 13% EV market share. Headquartered in Austin, Texas, Tesla opened its first Gigafactory in Fremont, California in 2010, and started its global expansion in 2019. Gigafactory Shanghai commenced deliveries in January 2020, while two more factories, in Berlin and Texas, started deliveries in March and April last year, respectively.

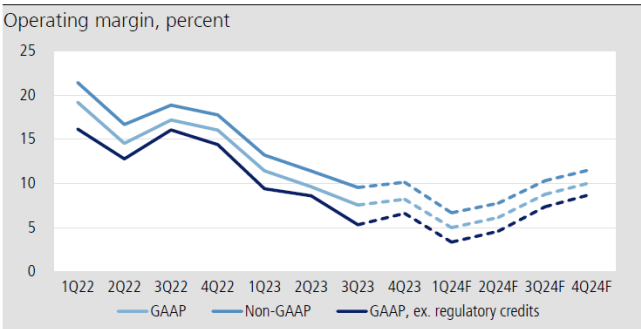
Source: Company data; KGI Research

Figure 11: Revenue


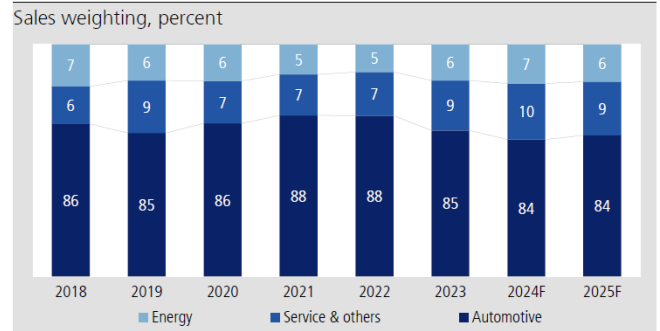
Source: Company data; KGI Research

Figure 13: GAAP gross margin


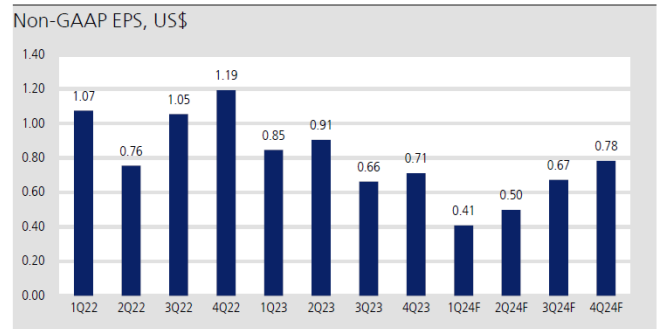
Source: Company data; KGI Research

Figure 15: Operating margin


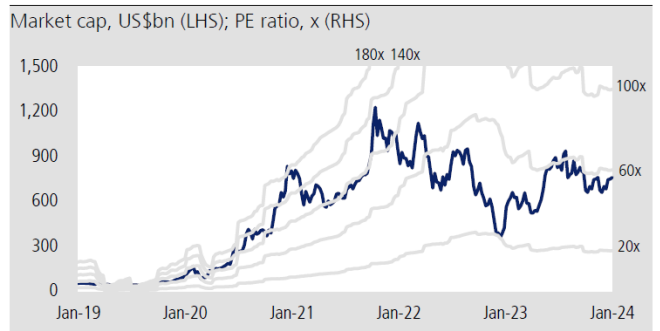
Source: Company data; KGI Research

Figure 10: Sales mix


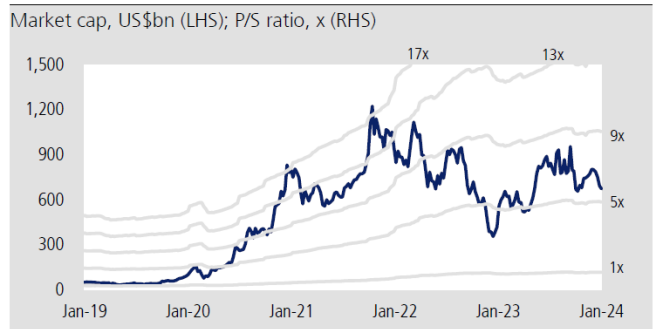
Source: Company data; KGI Research

Figure 12: Non-GAAP EPS


Source: Company data; KGI Research

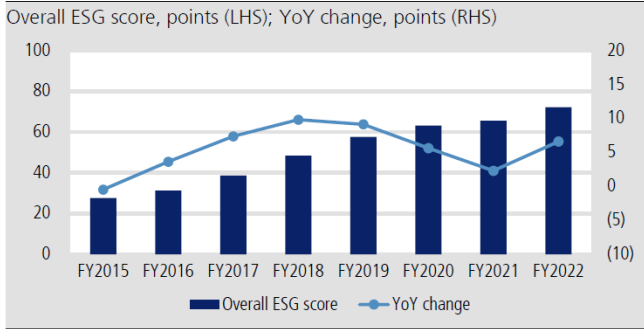
Figure 14: 12M forward PE band


Source: Bloomberg; KGI Research

Figure 16: 12M forward P/S band


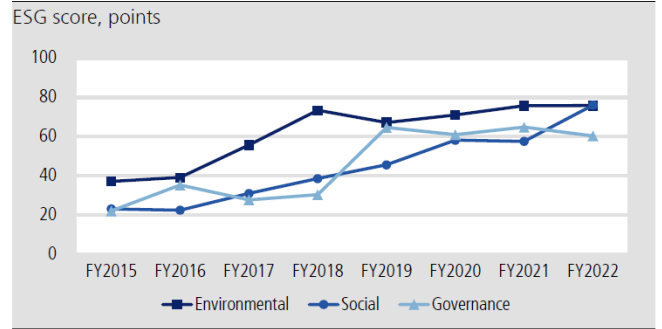
Source: Bloomberg; KGI Research

Figure 17: Overall ESG score



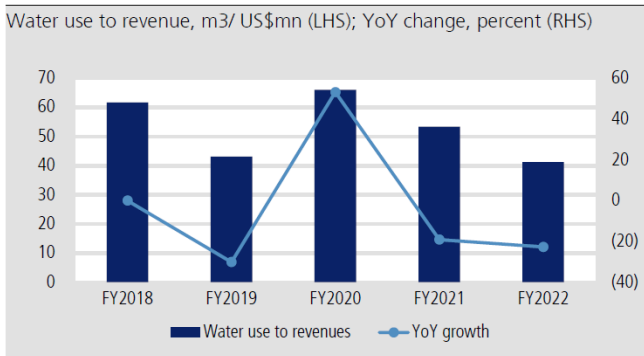
Source: Refinitiv; KGI Research; Company data

Figure 18: ESG score by category



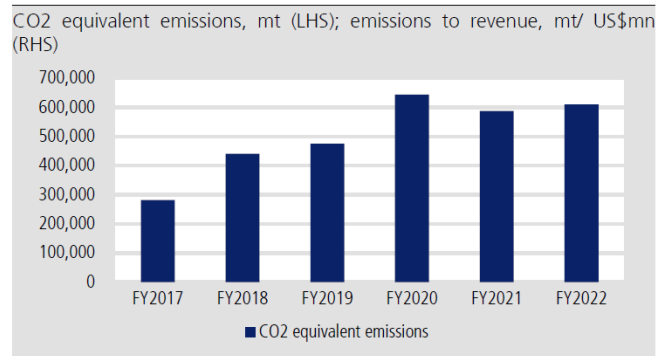
Source: Refinitiv; KGI Research; Company data

Figure 19: Water use to revenue



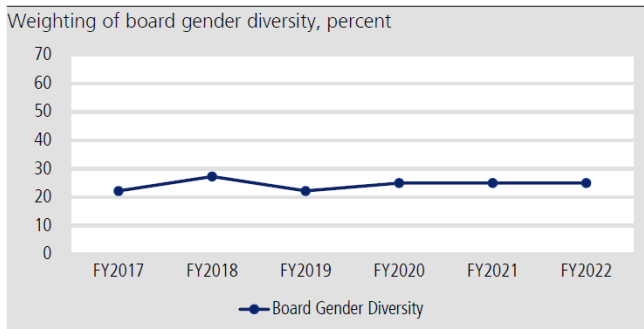
Source: Refinitiv; KGI Research; Company data

Figure 20: CO2 equivalent emissions



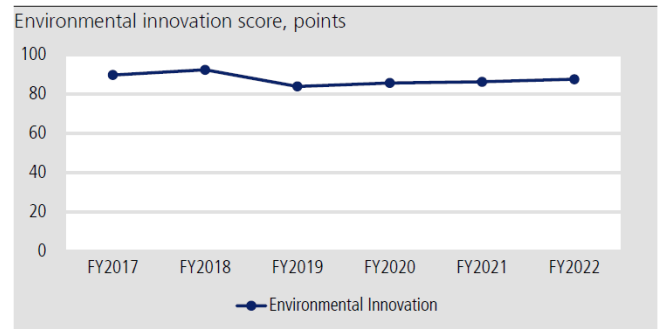
Source: Refinitiv; KGI Research; Company data

Figure 21: Board gender diversity



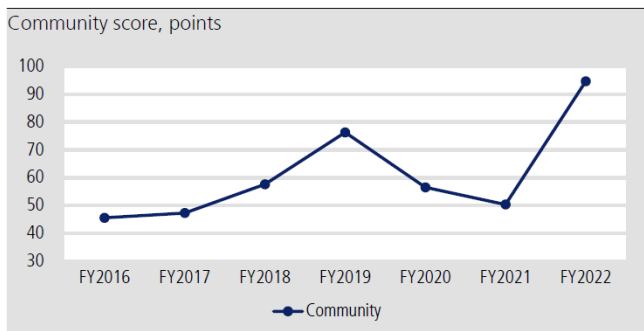
Source: Refinitiv; KGI Research; Company data

Figure 22: Environmental innovation



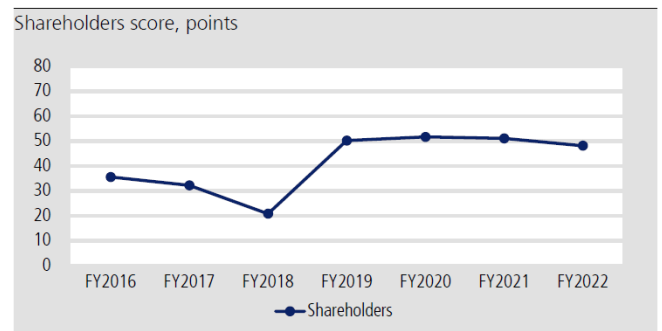
Source: Refinitiv; KGI Research; Company data

Figure 23: Community



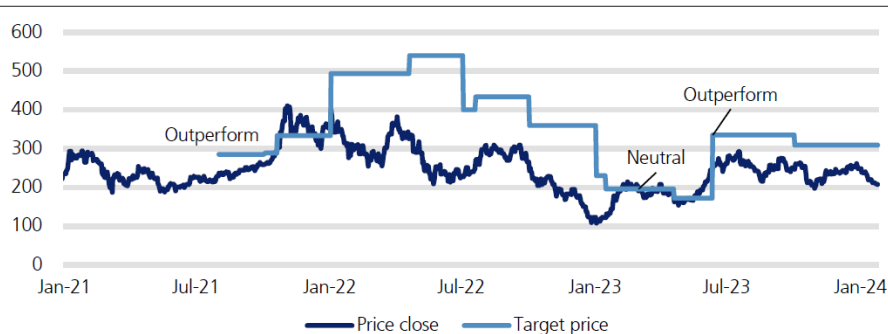
Source: Refinitiv; KGI Research; Company data

Figure 24: Shareholders



Source: Refinitiv; KGI Research; Company data

Item	Definition
Energy use	<p>Total direct and indirect energy consumption in gigajoules.</p> <ul style="list-style-type: none"> - the total amount of energy that has been consumed within the boundaries of the company's operations - total energy use = total direct energy consumption + indirect energy consumption - purchased energy and produced energy are included in total energy use - for utilities, transmission/ grid loss as part of its business activities is considered as total energy consumed and data does not consider electricity produced to answer energy use (utility company produces to sell) - for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use'
Renewable energy purchased	<p>Total primary renewable energy purchased in gigajoules.</p> <ul style="list-style-type: none"> - energy consumed by the company from various sources and among the purchased energy, how much energy is renewable in nature (solar, wind, hydro, biomass, geothermal) are in scope - if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased
Renewable energy use ratio	Renewable energy to total energy used
CO2 equivalent emissions	<p>Direct CO2 and CO2 equivalent emissions in metric tons.</p> <ul style="list-style-type: none"> - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)
CO2 equivalent emissions to sales	<p>Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$m)</p> <ul style="list-style-type: none"> - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)
Waste total	<p>Total amount of waste produced in metric tons.</p> <ul style="list-style-type: none"> - total waste = non-hazardous waste + hazardous waste - only solid waste is taken into consideration, exceptionally if liquid waste is reported in metric tons, then we do the summation to derive total including liquid waste - for sectors like mining, oil & gas, waste generation like tailings, waste rock, coal and fly ash are also considered
Waste recycling ratio	<p>The waste recycling ratio as reported by the company.</p> <ul style="list-style-type: none"> - waste recycling ratio = waste recycled/total waste*100 - waste to energy or waste incinerated with energy recovery are considered as waste recycled - waste recovered via composting is considered as recycled waste
Water withdrawal total	<p>Total water withdrawal in cubic meters.</p> <ul style="list-style-type: none"> - the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries such as water utilities - different sources of water like wells, town/utility/municipal water, river water, and surface water are considered
Environmental expenditures	<p>Total amount of environmental expenditures.</p> <ul style="list-style-type: none"> - all environmental investment & expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It also includes disposal, treatment, sanitation, and clean-up expenditures
Turnover of employees	<p>Percentage of employee turnover.</p> <ul style="list-style-type: none"> - includes employees who left the company for any reason (voluntary or involuntary), such as resignations, retirement, natural departure/death, medical incapacitation, redundancy, layoffs, restructuring, dismissal, retrenchment or end of a fixed-term contract - employees turnover rate = (employees leaving/average number of employees)*100 - where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2 - employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving
Women managers	<p>Percentage of women managers.</p> <ul style="list-style-type: none"> - percentage of women managers among total managers of the company - if there is a breakdown by category in percentage, such as top, senior, middle, and junior management, then we consider the percentage of middle women managers - percentage of women managers = number of women managers/total number of managers*100
Women employees	<p>Percentage of women employees.</p> <ul style="list-style-type: none"> - percentage of women employees to the total number of employees of the company - percentage of women employees = number of women/total number of employees*100
Training hours total	<p>Total training hours performed by all employees.</p> <ul style="list-style-type: none"> - consider only employee training hours - includes all types of training given to general employees (such as health & safety, environmental, emergency response, skills & career development training) - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked
Training hours per employee	Training hours per employee per year
Shareholders score	Shareholders category score measures a company's effectiveness towards equal treatment of shareholders and the use of anti-takeover devices.
Management score	Management category score measures a company's commitment and effectiveness towards following best practice corporate governance principles.
Product responsibility score	Product responsibility category score reflects a company's capacity to produce quality goods and services integrating the customer's health and safety, integrity and data privacy.
Community score	Community category score measures the company's commitment towards being a good citizen, protecting public health and respecting business ethics.
Workforce score	Workforce category score measures a company's effectiveness towards job satisfaction, healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce.
Resource use score	Resource use category score reflects a company's performance and capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.

Tesla – Recommendation & target price history


Date	Rating	Target	Price
2022-10-03	Outperform	360	265
2022-10-20	Outperform	360	222
2023-01-03	Outperform	230	123
2023-01-16	Outperform	196	122
2023-01-30	Outperform	196	178
2023-03-02	Neutral	196	203
2023-04-20	Neutral	172	181
2023-06-12	Outperform	335	244
2023-07-03	Outperform	335	262
2023-07-20	Outperform	335	291
2023-09-04	Outperform	335	245
2023-10-03	Outperform	309	252
2023-10-19	Outperform	309	243

Source: Bloomberg; KGI Research

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