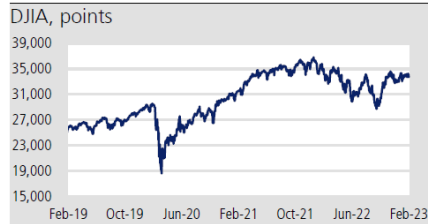




## US technology sector

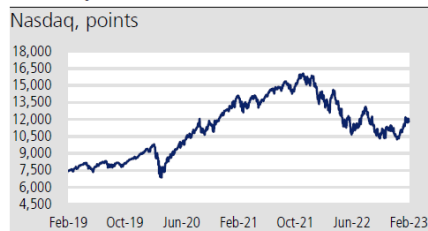
### Networking industry – Top picks are beneficiaries of improved components supply & data center demand

#### Dow Jones Industrial Average



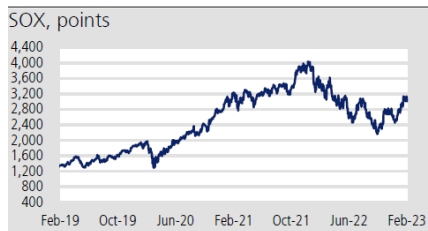
Source: Bloomberg

#### Nasdaq



Source: Bloomberg

#### SOX



Source: Bloomberg

#### ESG score card

Company		Overall	E	S	G
Arista Networks	ANET US	63	62	54	73
Cisco Systems	CSCO US	87	71	94	90
Comcast	CMCSA US	79	85	83	64

Source: Refinitiv, KGI

#### Event

We remain cautious about demand from telecom operators, but maintain a positive outlook on demand for data center switches. Arista (US) remains our top pick, as the firm is likely to maintain resilient growth in 2023. Based on 4Q22/2QFY23 results and 2023/FY23 guidance, we adjust the target prices of our US networking coverage.

#### Impact

**North American wireless telecom operators slowing down 5G infrastructure construction, focus on recouping investments.** With deployment in the C-band almost complete, Verizon (US) expects 2023F capex to decline markedly (2022 was US\$23.1bn, and is expected to decline about 20% YoY to midpoint of US\$19bn in 2023F, followed by another 10% YoY decline to about US\$17bn in 2024F), but remains upbeat about demand for fixed wireless access (FWA). AT&T (US) and T-Mobile US (US) also mentioned plans to cut capex in 2023F, after reaching peak levels in 2022. On the other hand, base station suppliers Ericsson (SE) and Nokia (FL) both anticipate decelerating infrastructure investment in North America this year, but note that investment in India could pick up pace. As such, we believe telecom infrastructure demand will be stronger in India in 2023, while in North America, as build-outs are almost over, telecom operators will switch their focus to recouping investments and promoting FWA and other telecom services that are more attractive to users.

**Multiple-system operators (MSO) are impacted by reduced user activity.** Charter (US) said user activity has remained sluggish of late, and as broad-based network upgrades driven by the pandemic come to an end, we believe the ongoing deceleration in user base expansion, which started in 2H21, will persist. At its analyst meeting, Comcast (US) also spoke of low user activity, and while management expects the user base to grow YoY in 2023, it acknowledges that pull-in limitation, which began in 4Q22, is very likely to persist through 2023. We maintain a cautious view on bandwidth upgrade demand from MSO in 2023. As Comcast is set to continue to benefit from increasing consumer spending at theme parks and movie theaters in the post-pandemic era, we adjust 2023-24F sales to US\$123.9bn and US\$124.1bn, and EPS to US\$4.11 and US\$4.46.

**Networking equipment suppliers more positive on enterprise & data center demand.** Netgear (US) said sales of its midrange and low-end products are more sensitive to the broader economy. Inventories remain high in distribution channels, but they're still trying to reduce inventory levels. Meanwhile, Juniper (US), Arista, and Cisco (US) expect easing raw material supplies to boost sales, and remain optimistic about the outlook for enterprise and data center demand, but conservative about telecom operator demand. Juniper revised up 2023F sales growth to at least 8% YoY from at least 7%. Likewise, Cisco also revised up FY23 (FY ends in July) sales growth to 9.0-10.5% YoY from 4.5-6.5%. Management notes that telecom operators have barely placed any orders with the firm and its competitors, but anticipates the situation will return to normal soon. Arista stands by guidance for 25% YoY sales growth in 2023. In our view, the launch of ChatGPT will help boost demand for data center bandwidth given increasing user visits and the need for more coordinated GPU computing. As a result, we remain upbeat about demand for data center switches within the networking sector. Based on Arista's 4Q22 and Cisco's 2Q FY23 results, we revise up the former's 2023-24F sales to US\$5.51bn and US\$6.15bn, and the latter's FY23-24F sales to US\$5.9bn and US\$7.5bn, for respective EPS of US\$5.79 and US\$6.47, and US\$3.74 and US\$4.02.

**Figure 1: Breakdown of Comcast 4Q22 results versus consensus**

(US\$m)	4Q22			Consensus	Diff. (%)
	Actual	QoQ (%)	YoY (%)		
Revenue	30,552	2.4	0.7	30,665	(0.4)
Gross profit	20,745	(0.7)	1.4	21,153	(1.9)
Gross margin (%)	67.9	(2.1) ppts	0.5 ppts	69.0	(1.1) ppts
Operating profit	4,530	(26.3)	(6.0)	5,273	(14.1)
Operating margin (%)	14.8	(5.8) ppts	(1.1) ppts	17.2	(2.4) ppts
Pre-tax profit	3,748	(23.9)	(3.5)	4,443	(15.6)
Pre-tax margin (%)	12.3	(4.2) ppts	(0.5) ppts	14.5	(2.2) ppts
Income tax	797	(21.4)	(11.9)	1,141	(30.2)
Tax rate (%)	21.3	0.7 ppts	(2.0) ppts	25.7	(4.4) ppts
Net profit	3,520	(16.6)	(0.4)	3,700	(4.9)
Net margin (%)	11.5	(2.6) ppts	(0.1) ppts	12.1	(0.5) ppts
Adj. EPS (US\$)	0.82	(14.6)	6.5	0.85	(3.0)

Source: Company data, Bloomberg, KGI Research

**Figure 2: Breakdown of Comcast 2021-25F results & forecasts**

Key financials and valuations					
	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue (US\$m)	116,385	121,427	123,938	124,081	127,666
Gross profit (US\$m)	79,273	83,206	86,121	87,020	90,600
Operating profit (US\$m)	20,895	22,615	24,064	24,816	27,126
EBITDA (US\$m)	34,708	36,459	37,907	38,956	41,234
Net profit (US\$m)	15,044	16,147	16,132	16,625	18,136
EPS (US\$)	3.24	3.65	4.11	4.46	5.29
Revenue growth (%)	12.4	4.3	2.1	0.1	2.9
EPS growth (%)	24.1	12.7	12.5	8.7	18.6
Gross margin (%)	68.1	68.5	69.5	70.1	71.0
Operating margin (%)	18.0	18.6	19.4	20.0	21.2
EBITDA margin (%)	29.8	30.0	30.6	31.4	32.3
Net debt to equity (%)	88.5	107.5	109.5	109.0	130.3
Return on average equity (%)	15.2	17.2	17.7	18.3	15.6

Source: Company data, Bloomberg, KGI Research

**Figure 3: Breakdown of Arista 4Q22 results & 1Q23 guidance versus consensus**

US\$m	4Q22					1Q23F				
	Actual	Consensus	Diff. (%)	QoQ (%)	YoY (%)	Guidance (Midpoint)	Consensus	Diff. (%)	QoQ (%)	YoY (%)
Revenue	1,276	1,199	6.3	8.4	54.7	1,300	1,307	(0.5)	1.9	48.2
Breakdown										
Product	1,097	1,015	8.0	8.7	64.2		1,123			
Service	179	184	(2.9)	6.3	14.2		181			
Gross profits	778	734	5.9	8.1	46.7		786			
Product	625	627	(0.2)	8.5	57.4		639			
Service	143	148	(3.0)	7.1	14.2		145			
Operating income	543	483	12.4	10.4	67.6		526			
EBITDA	548	499	9.8	7.5	62.7		541			
Pretax income	486	486	(0.1)	14.5	81.8		480			
Net income	445	382	16.5	13.6	69.6		425			
EPS (US\$)	1.41	1.21	16.5	12.8	72.0		1.34			
Gross margin (%)	61.0	61.2	(0.2)ppts	(0.2)ppts	(3.3)ppts	60.0	60.1	(0.1)ppts	(1.0)ppts	(3.9)ppts
Product	57.0	61.7	(4.7)ppts	(0.1)ppts	(2.5)ppts		56.9			
Service	80.2	80.3	(0.0)ppts	0.6 ppts	(0.0)ppts		79.8			
OP margin (%)	42.6	40.3	2.3 ppts	0.8 ppts	3.3 ppts	40.0	40.2	(0.2)ppts	(2.6)ppts	1.7 ppts
EBITDA margin (%)	42.9	41.6	1.4 ppts	(0.3)ppts	2.1 ppts		41.4			
Net margin (%)	34.9	31.9	3.0 ppts	1.6 ppts	3.1 ppts		32.5			

Source: Company data, Bloomberg, KGI Research

**Figure 4: Breakdown of Arista 2021-25F results & forecasts**

Key financials and valuations					
	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue (US\$mn)	2,948	4,381	5,510	6,145	6,645
Gross profit (US\$mn)	1,910	2,711	3,388	3,881	4,265
Operating profit (US\$mn)	1,141	1,796	2,253	2,512	2,657
EBITDA (US\$mn)	1,191	1,859	2,301	2,526	2,695
Net profit (US\$mn)	915	1,448	1,831	2,046	2,184
EPS (US\$)	2.87	4.58	5.79	6.47	6.91
Revenue growth (%)	27.2	48.6	25.8	11.5	8.1
EPS growth (%)	27.0	59.6	26.4	11.7	6.8
Gross margin (%)	64.8	61.9	61.5	63.2	64.2
Operating margin (%)	38.7	41.0	40.9	40.9	40.0
EBITDA margin (%)	40.4	42.4	41.8	41.1	40.6
Net debt to equity (%)	Net Cash	Net Cash	Net Cash	Net Cash	Net Cash
Return on average equity (%)	23.0	29.6	31.4	29.0	25.3

Source: Company data, Bloomberg, KGI Research

**Figure 5: Breakdown of Cisco 2Q FY22 results, & 3Q FY23 & FY23 guidance versus consensus**

US \$mn	2Q23						3Q23F						2023F			
	Actual	Consensus	Diff. (%)	QoQ (%)	YoY (%)	Guidance (mid-point)	Diff. (%)	Guidance (mid-point)	Consensus	Diff. (%)	QoQ (%)	YoY (%)	Guidance (mid-point)	Consensus	Diff. (%)	YoY (%)
Total revenue	13,592	13,449	1.1	(0.3)	6.9	13,420	1.3	14,375	14,302	0.5	5.8	12.0	56,584	53,837	5.1	9.8
Product	10,155	10,016	1.4	(0.9)	8.6				10,699					40,605		
Services	3,437	3,432	0.1	1.5	2.1				3,508					13,232		
Gross profits	8,685	8,529	1.8	1.1	4.3	8,521	1.9	9,200	9,157	0.5	5.9	9.7		34,351		
Operating income	4,414	4,303	2.6	1.8	1.1	4,294	2.8	4,816	4,778	0.8	9.1	8.2		18,588		
EBITDA	4,808	4,715	2.0	1.2	0.6				5,227					20,198		
Pretax Income	4,493	4,348	3.3	10.3	2.6				4,881					18,790		
Net income	3,639	3,522	3.3	2.5	2.6				3,944					15,170		
EPS (US\$)	0.88	0.86	2.8	2.3	4.8	0.85	3.5	0.97	0.96	1.1	10.2	11.5	3.76	3.71	1.2	11.8
Gross margin (%)	63.9	63.4	0.5 ppts	0.9 ppts	(1.6)ppts	63.5	0.4 ppts	64.0	64.0	(0.0)ppts	0.1 ppts	(1.3)ppts		63.8		
Product	62.1	61.9	0.2 ppts	1.1 ppts	(2.2)ppts				62.7					60.4		
Services	69.1	68.7	0.4 ppts	0.3 ppts	0.3 ppts				68.8					68.7		
OP margin (%)	32.5	32.0	0.5 ppts	0.7 ppts	(1.8)ppts	32.0	0.5 ppts	33.5	33.4	0.1 ppts	1.0 ppts	(1.2)ppts		34.5		
EBITDA margin (%)	35.4	35.1	0.3 ppts	0.5 ppts	(2.2)ppts				36.5					37.5		
Net margin (%)	26.8	26.2	0.6 ppts	0.7 ppts	(1.1)ppts				27.6					28.2		

Source: Company data, Bloomberg, KGI Research

Note: Fiscal year ends in July

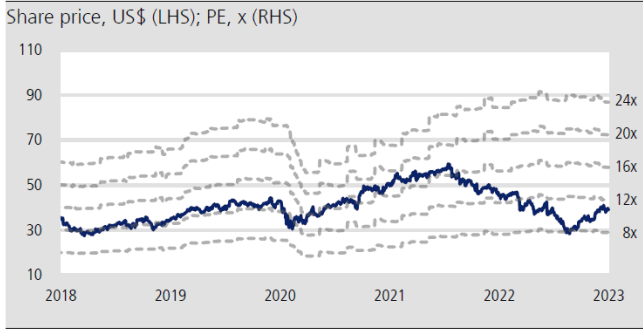
**Figure 6: Breakdown of Cisco FY21-25F results & forecasts**

Key financials and valuations					
	Jul-21A	Jul-22A	Jul-23F	Jul-24F	Jul-25F
Revenue (US\$mn)	49,818	51,557	55,949	57,546	61,083
Gross profit (US\$mn)	32,914	33,326	35,712	37,202	39,868
Operating profit (US\$mn)	16,702	17,345	18,716	19,945	21,212
EBITDA (US\$mn)	18,564	20,251	20,422	21,711	22,653
Net profit (US\$mn)	13,636	14,094	15,405	16,436	17,589
EPS (US\$)	3.22	3.36	3.74	4.02	4.28
Revenue growth (%)	1.0	3.5	8.5	2.9	6.1
EPS growth (%)	0.6	4.3	11.2	7.7	6.4
Gross margin (%)	66.1	64.6	63.8	64.6	65.3
Operating margin (%)	33.5	33.6	33.5	34.7	34.7
EBITDA margin (%)	37.3	39.3	36.5	37.7	37.1
Net debt to equity (%)	Net Cash	Net Cash	Net Cash	Net Cash	Net Cash
Return on average equity (%)	33.9	33.8	33.4	32.0	28.5

Source: Company data, Bloomberg, KGI Research

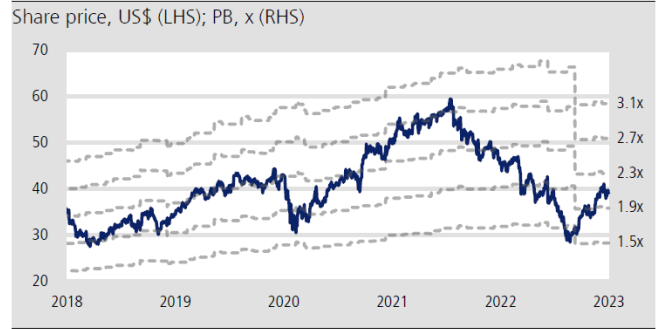
Note: Fiscal year ends in July

**Figure 7: Comcast's 12M forward PE band**



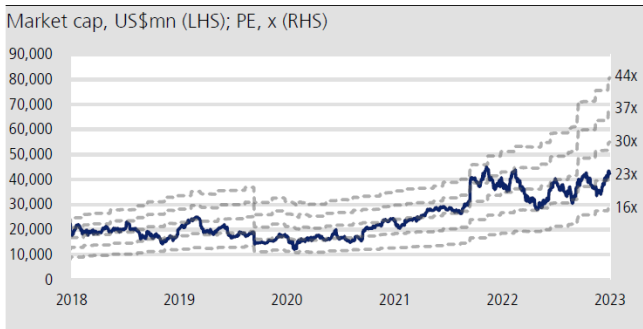
Source: Bloomberg, KGI Research

**Figure 8: Comcast's 12M forward PB band**



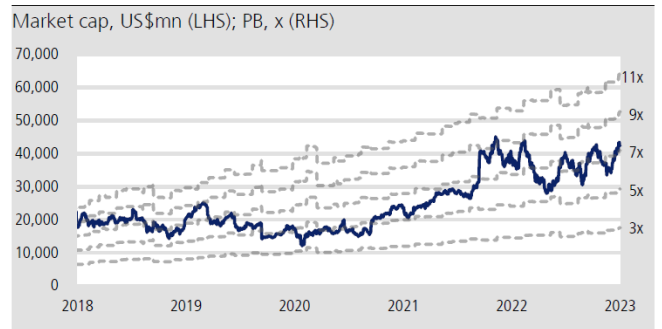
Source: Bloomberg, KGI Research

**Figure 9: Arista's 12M forward PE band**



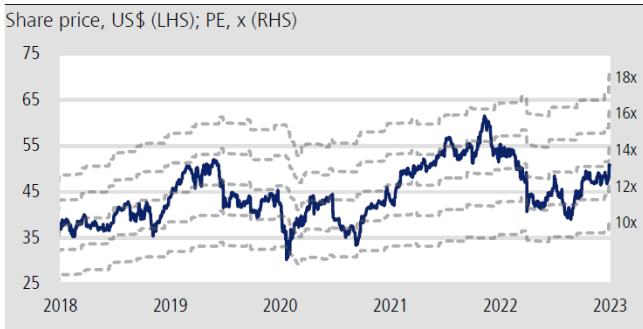
Source: Bloomberg, KGI Research

**Figure 10: Arista's 12M forward PB band**



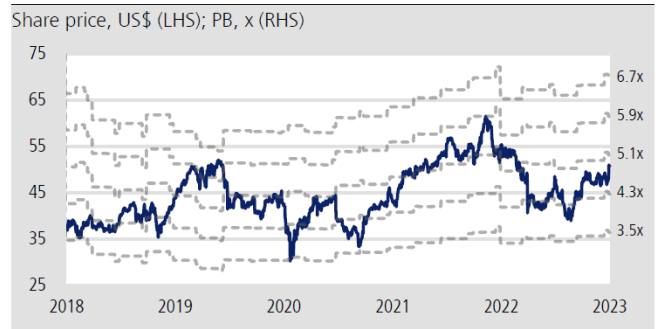
Source: Bloomberg, KGI Research

**Figure 11: Cisco's 12M forward PE band**



Source: Bloomberg, KGI Research

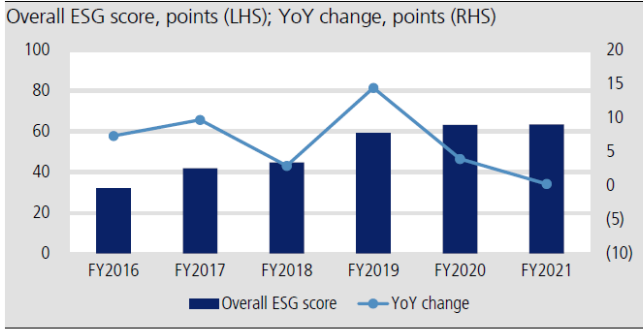
**Figure 12: Cisco's 12M forward PB band**



Source: Bloomberg, KGI Research

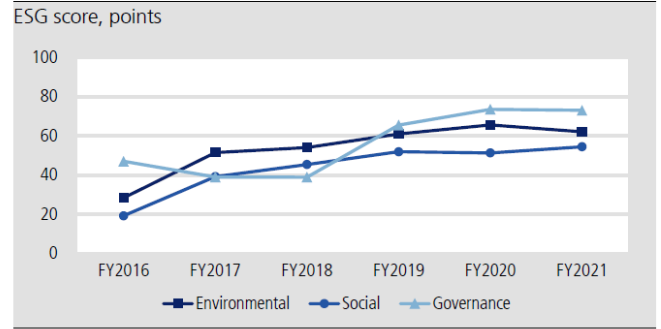
Arista Networks (ANET US)

Figure 13: Arista Networks - Overall ESG score



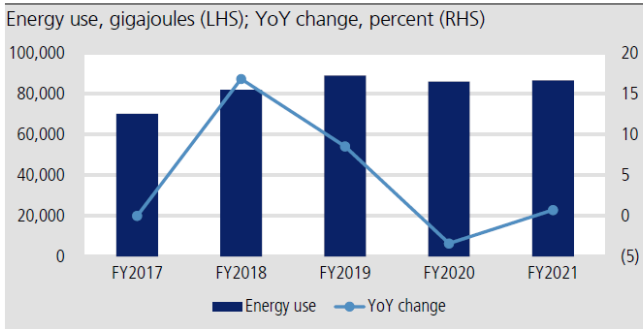
Source: Refinitiv, Company data

Figure 14: Arista Networks - ESG score by category



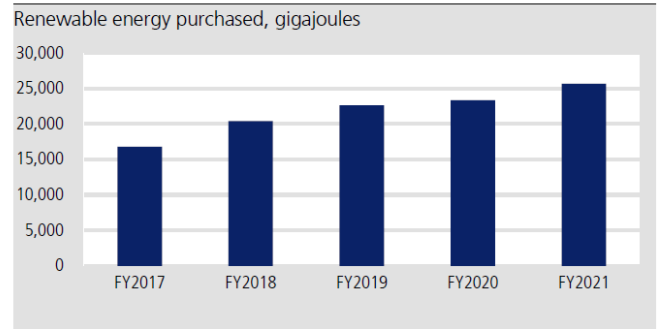
Source: Refinitiv, Company data

Figure 15: Arista Networks - Energy use



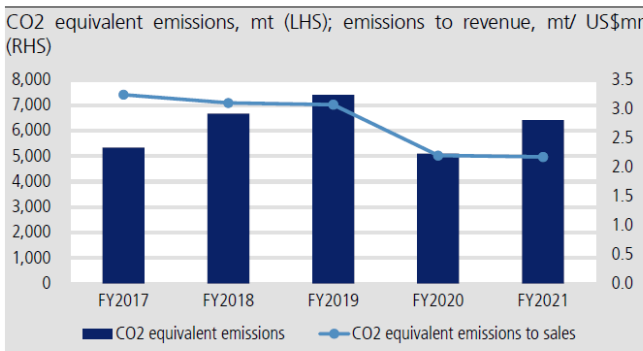
Source: Refinitiv, Company data

Figure 16: Arista Networks - Renewable energy



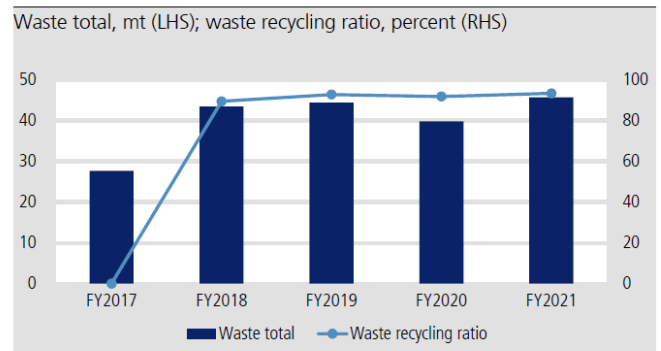
Source: Refinitiv, Company data

Figure 17: Arista Networks - CO2 equivalent emissions



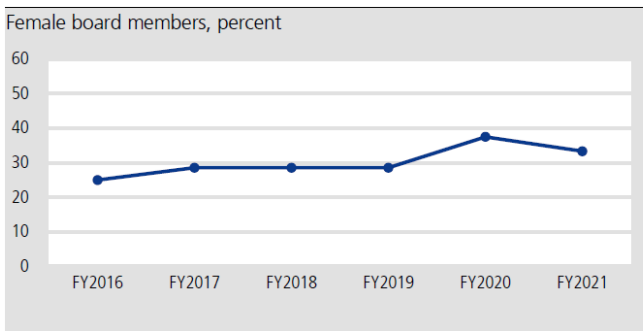
Source: Refinitiv, Company data

Figure 18: Arista Networks - Waste total



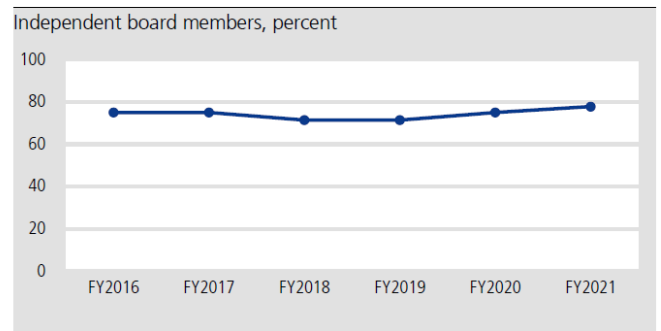
Source: Refinitiv, Company data

Figure 19: Arista Networks - Board members gender diversification



Source: Refinitiv, Company data

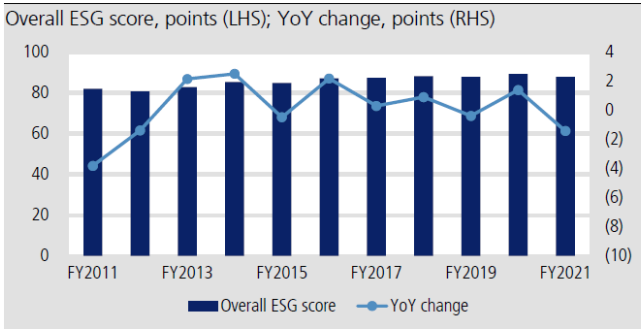
Figure 20: Arista Networks - Independent board members



Source: Refinitiv, Company data

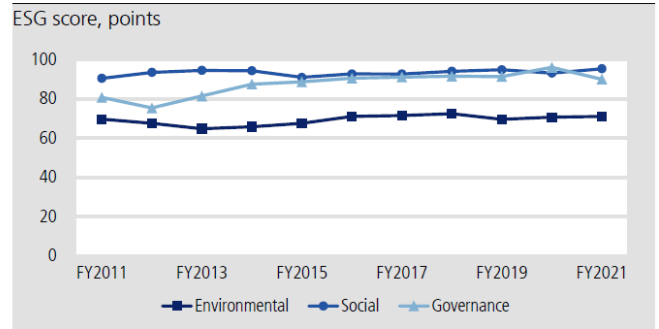
Cisco (CSCO US)

Figure 21: Cisco - Overall ESG score



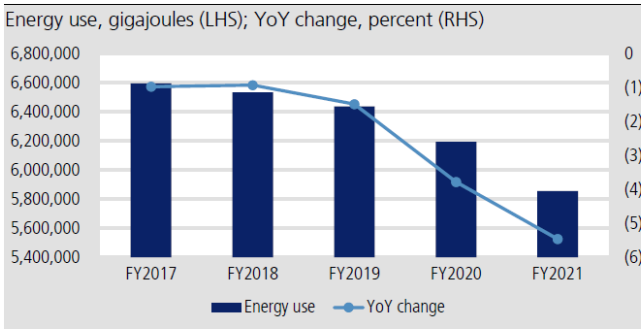
Source: Refinitiv, Company data

Figure 22: Cisco - ESG score by category



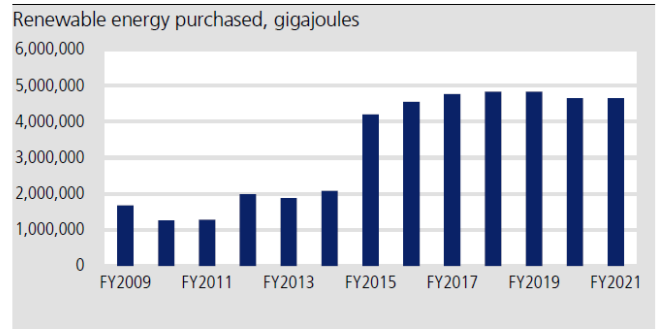
Source: Refinitiv, Company data

Figure 23: Cisco - Energy use



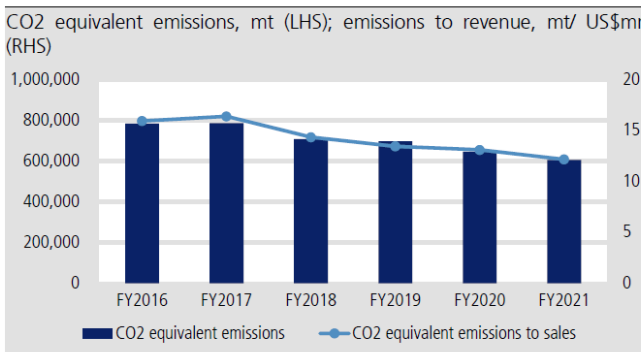
Source: Refinitiv, Company data

Figure 24: Cisco - Renewable energy



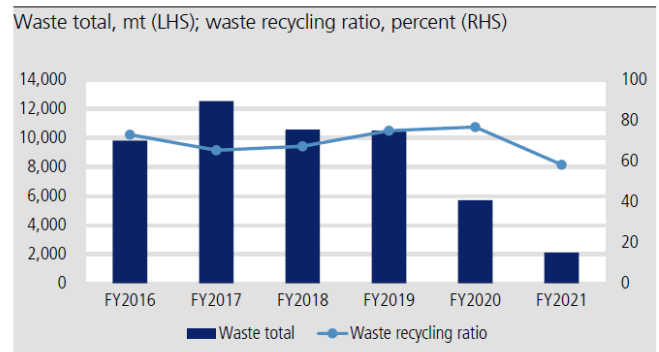
Source: Refinitiv, Company data

Figure 25: Cisco - CO2 equivalent emissions



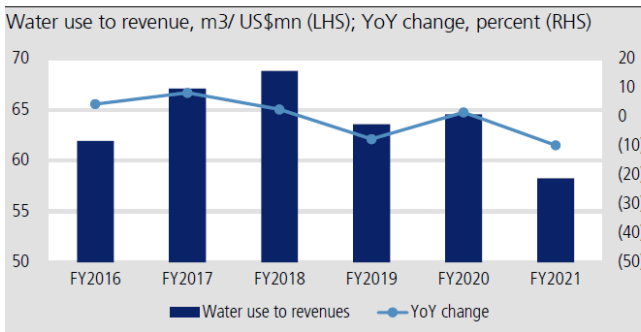
Source: Refinitiv, Company data

Figure 26: Cisco - Waste total



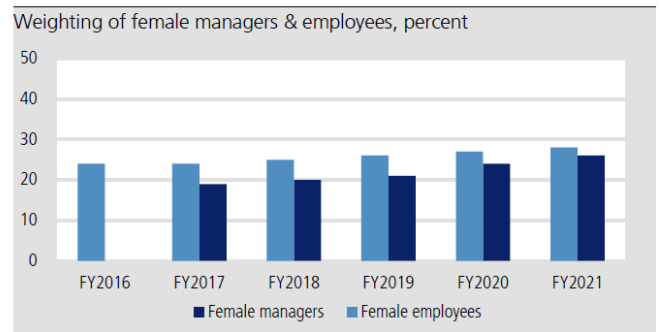
Source: Refinitiv, Company data

Figure 27: Cisco - Water use to revenue



Source: Refinitiv, Company data

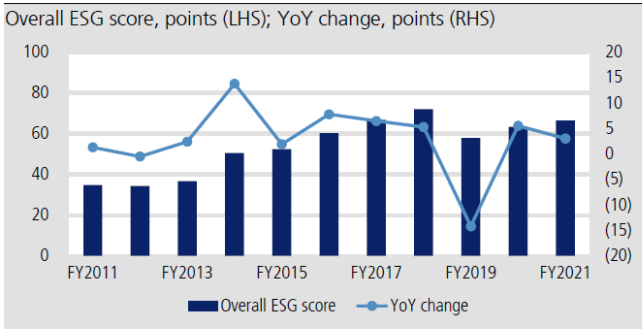
Figure 28: Cisco - Gender diversification



Source: Refinitiv, Company data

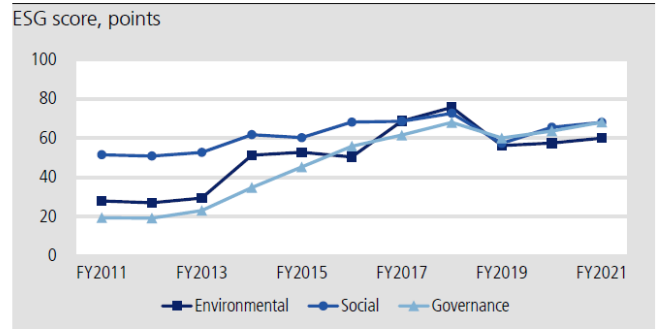
Comcast (CMCSA US)

Figure 29: Comcast - Overall ESG score



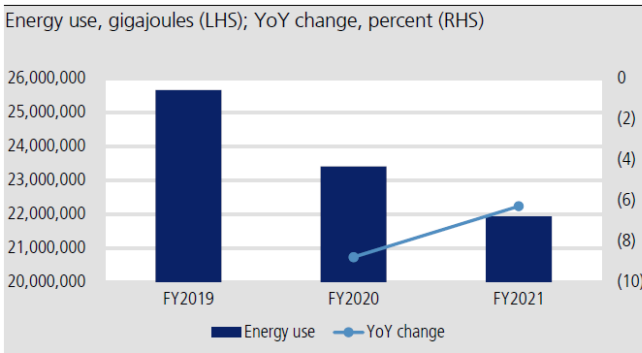
Source: Refinitiv, Company data

Figure 30: Comcast - ESG score by category



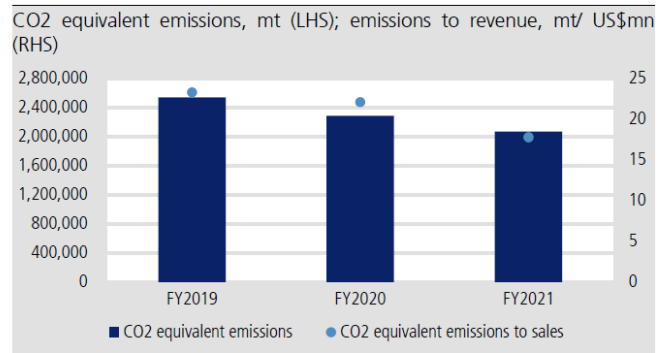
Source: Refinitiv, Company data

Figure 31: Comcast - Energy use



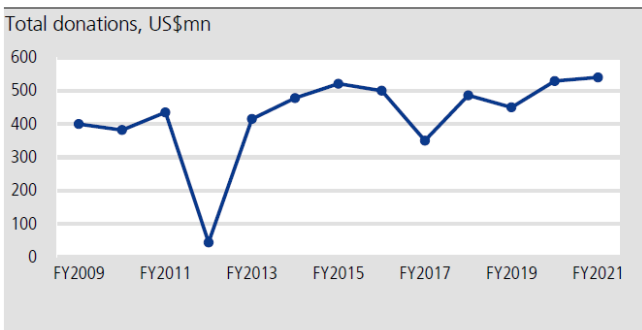
Source: Refinitiv, Company data

Figure 32: Comcast - CO2 equivalent emissions



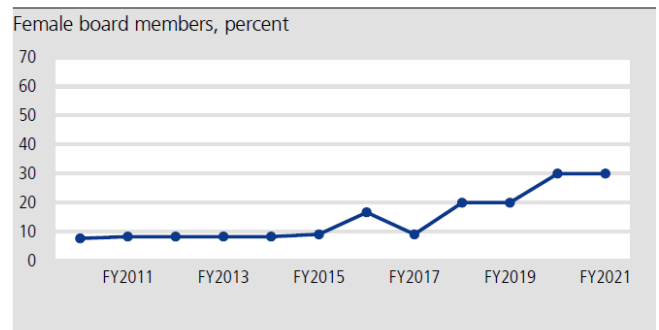
Source: Refinitiv, Company data

Figure 33: Comcast - Donations



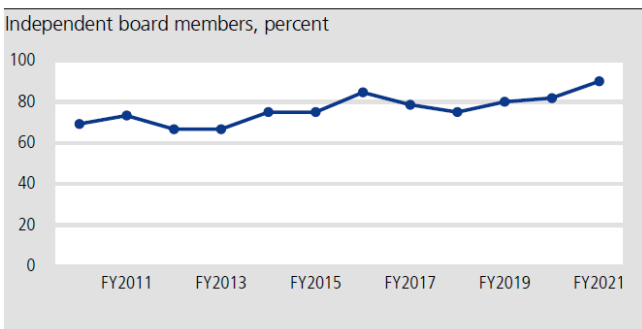
Source: Refinitiv, Company data

Figure 34: Comcast - Board members gender diversification



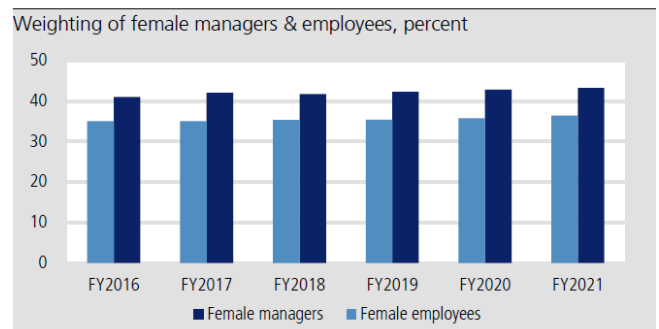
Source: Refinitiv, Company data

Figure 35: Comcast - Independent board members



Source: Refinitiv, Company data

Figure 36: Comcast - Gender diversification



Source: Refinitiv, Company data

**ESG chart definition**

Item	Definition	Remarks
Energy use	Total direct and indirect energy consumption in gigajoules. - 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	Total primary renewable energy purchased in gigajoules. - 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	Direct CO2 and CO2 equivalent emissions in metric tons. - 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	Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$m) - 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	Total amount of waste produced in metric tons. - 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	The waste recycling ratio as reported by the company. - 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	Total water withdrawal in cubic meters. - 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	Total amount of environmental expenditures. - 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	Percentage of employee turnover. - 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	Percentage of women managers. - 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	Percentage of women employees. - 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	Total training hours performed by all employees. - 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	

Source: Refinitiv, Company data

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