

Nanya Technology (2408. TW/2408 TT)

Utilization rate to rebound in 1Q24F

FTSE4Good TIP Taiwan ESG Index stock

Outperform · Maintained

Price as of January 10 (NT\$)	71.50
12M target price (NT\$)	85.00
Previous target price (NT\$)	85.00
Unchanged (%)	0.0
Upside (%)	18.9

Key message

- Nanya Technology reported 4Q23 LPS of NT\$0.80, missing our forecast, with lower than expected ASP growth.
- Management guides gradual raises of wafer input throughout 2024F, and significant reductions in idle costs in 1Q24F.

Trading data

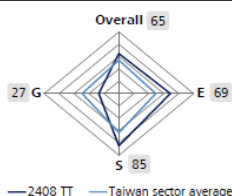
Mkt cap (NT\$bn/US\$m)	221.5 / 7,129
Outstanding shares (mn)	3,098
Foreign ownership (mn)	575
3M avg. daily trading (mn)	11.72
52-week trading range (NT\$)	56.00 –79.70

Performance	3M	6M	12M
Absolute (%)	3.3	2.6	26.5
Relative (%)	-2.4	-2.3	8.5

Quarterly EPS

NT\$	1Q	2Q	3Q	4Q
2022	2.11A	2.12A	0.85A	(0.37)A
2023	(0.54)A	(0.25)A	(0.81)A	(0.80)F
2024	(0.50)F	0.19F	1.31F	1.69F

ESG score card



Source: Refinitiv, KGI securities

Event

Nanya Technology reported 4Q23 preliminary loss per share (LPS) of NT\$0.80, missing our forecast.

Impact

4Q23 earnings missed, with lower than expected ASP growth. 4Q23 preliminary LPS came in at NT\$0.80, missing our forecast of LPS at NT\$0.60, and consensus of LPS of NT\$0.59. Gross margin of negative (13.6%) missed our forecast of negative (6.0%) and consensus of negative (9.4%), on: (1) ASP grew by low-single digits QoQ to US\$0.29/Gb, below our forecast of US\$0.30/Gb; (2) bit shipments were up by a low-teens percentage QoQ, above our forecast of 6% QoQ growth; (3) depreciation cost per unit decreased from US\$0.14/Gb in 3Q23 to US\$0.13/Gb in 4Q23, while variable cost per unit decreased from US\$0.21/Gb in 3Q23 to US\$0.20/Gb in 4Q23. Average unit cost was in line with our forecast, due to idled costs narrowing QoQ, with around 20% of production idled; (4) R&D expenses grew 24% QoQ. 2023 capex was NT\$13.2bn, below latest guidance of NT\$15bn. 4Q23 inventory levels decreased slightly QoQ, with limited inventory write-downs, as inventory remains valued above cost.

Raising wafer input from 1Q24. Management guides: (1) bit shipments to gradually grow QoQ throughout 2024F, with growth exceeding 20% YoY in 2024F; (2) blended ASP to grow QoQ in 1Q24F and 2Q24F; (3) gradual raises of wafer input throughout 2024F, and significant reductions in idle costs in 1Q24F; (4) to reach breakeven in mid-2024F; (5) inventory levels to decrease QoQ throughout 2024F, and likely normalizing in 2H24; (6) 2024F capex of NT\$20bn, up 51% YoY; (7) shipment of 16Gb DDR5 sample products by end-2Q24F, with a DDR5 revenue contribution target of more than 10% in 2024F; and (8) development of TSV technology used for DDR5 RDIMMs, which will start pilot production in mid-2024.

DRAM pricing dynamics continue to get better. Management expects the DRAM price rebound to continue in 2024F, supported by: (1) inventory digestion by main suppliers; and (2) China smartphone demand rebounding in 4Q23.

Valuation & Action

We maintain our target price at NT\$85, on 1.5x 2024F BVPS of NT\$57. With Nanya Technology gradually raising production, resulting in narrowing capacity idling cost, we recommend engaging this stock. Maintain Outperform.

Risks

Slow industry-wide process conversion; PC and smartphone demand.

Key financials and valuations

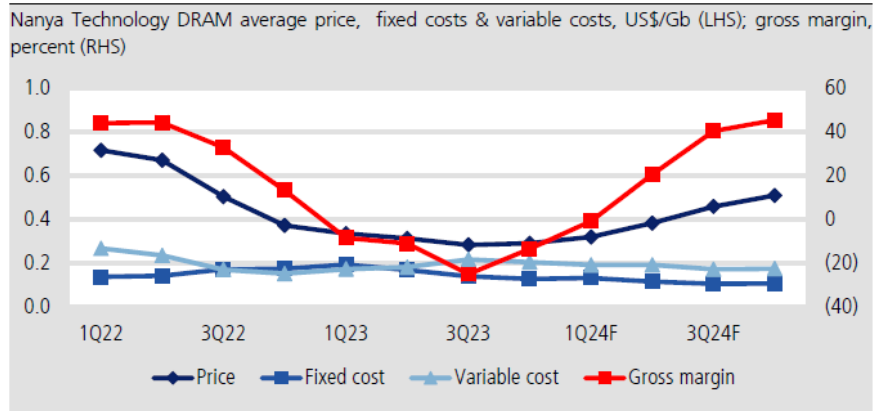
	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue (NT\$m)	85,604	56,952	29,892	58,336	77,004
Gross profit (NT\$m)	37,044	21,342	(4,483)	17,947	32,626
Operating profit (NT\$m)	27,186	11,002	(14,460)	7,447	22,626
Net profit (NT\$m)	22,849	14,619	(7,436)	8,316	20,592
EPS (NT\$)	7.40	4.72	(2.40)	2.68	6.65
Cash DPS (NT\$)	3.70	2.13	0.30	1.20	3.00
EPS growth (%)	195.2	(36.2)	(150.9)	0.0	147.6
PE (x)	9.7	15.1	N.A.	26.6	10.8
PB (x)	1.3	1.2	1.3	1.3	1.1
EV/EBITDA (x)	3.1	5.3	182.5	6.8	3.7
Net debt to equity (%)	Net cash	Net cash	Net cash	Net cash	Net cash
Dividend yield (%)	5.2	3.0	0.4	1.7	4.2
Return on average equity (%)	14.0	8.3	(4.2)	4.8	11.1

Source: Company data, KGI Research estimates

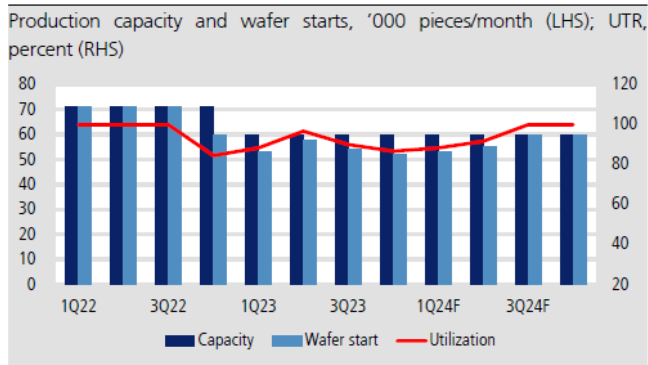
Figure 1: Business highlights in 4Q23 & outlook

	3Q23	4Q23			1Q24F	2023	2024F
	Result	Result	Consensus	Guidance	Guidance	Result	Guidance
Revenue (NT\$m)	7,736	8,704	8,793			29,892	
Bit shipment (mn Gb)	862	957				3,186	
QoQ (%)	18	11		up mid-to-high single digits	up		
YoY (%)	21	39				(4)	>20%
ASP (US\$Gb)	0.28	0.29				0.30	
QoQ (%)	(10)	3		up	up		up
YoY (%)	(44)	(22)				(48)	
COGS (NT\$m)	9,689	9,892	9,622			34,375	
Per Gb (US\$Gb)	0.35	0.33				0.35	
Depreciation (NT\$m)	3,789	3,784				15,025	
Per Gb (US\$Gb)	0.14	0.13				0.15	
Variable cost (NT\$m)	5,900	6,108				19,350	
Per Gb (US\$Gb)	0.21	0.20				0.20	
Financials							
Gross margin(%)	(25.24)	(13.65)	(9.4)			(15.00)	
SG&A (NT\$m)	2,387	2,862				9,977	
Income tax (NT\$m)	(638)	(1041)				(3,256)	
EPS (NT\$)	(0.81)	(0.80)	(0.59)			(2.40)	
Capex (NT\$m)	2,431	2,189				13,245	20,000

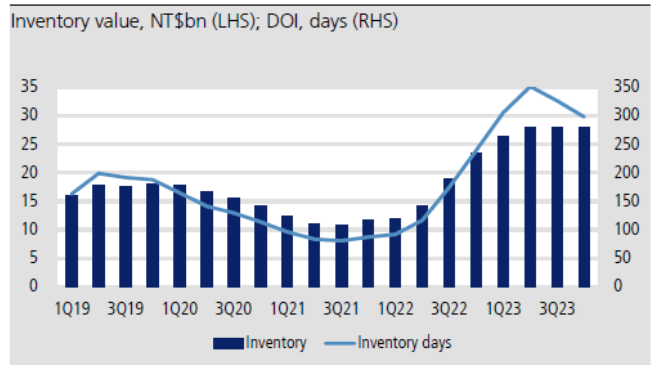
Source: KGI Research

Figure 2: Rising DRAM prices lead to gross margin uptrend


Source: Gartner; KGI Research

Figure 3: Wafer production starts to rebound in 1Q24F


Source: TrendForce; KGI Research

Figure 4: Inventory value declined slightly QoQ in 4Q23


Source: KGI Research

Figure 5: Breakdown of 4Q23 results & 1Q24 forecast revisions vs. consensus

NT\$m	4Q23							1Q24F						
	Result	KGI forecast	Diff. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)
Sales	8,704	8,566	1.6	12.5	9.4	8,793	(1.0)	9,422	9,894	(4.8)	8.3	46.6	9,571	(1.6)
Gross profits	(1,188)	(583)	-	-	-	(829)	-	(91)	940	-	-	-	209	-
Operating income	(4,050)	(2,999)	-	-	-	(3,072)	-	(2,701)	(1,545)	-	-	-	(2,030)	-
Pretax income	(3,517)	(2,123)	-	-	-	(2,220)	-	(1,908)	(756)	-	-	-	(1,280)	-
Net income	(2,476)	(1,549)	-	-	-	(1,784)	-	(1,564)	(620)	-	-	-	(1,062)	-
EPS (NT\$)	(0.80)	(0.50)	-	-	-	(0.59)	-	(0.50)	(0.20)	-	-	-	(0.37)	-
Gross margin (%)	(13.6)	(6.8)	(6.8)ppts	11.6 ppts	(26.7)ppts	(9.4)	(4.2)ppts	(1.0)	9.5	(10.5)ppts	12.7 ppts	7.7 ppts	2.2	(3.2)ppts
OP margin (%)	(46.5)	(35.0)	(11.5)ppts	9.6 ppts	(27.1)ppts	(34.9)	(11.6)ppts	(28.7)	(15.6)	(13.1)ppts	17.9 ppts	16.2 ppts	(21.2)	(7.5)ppts
Net margin (%)	(28.4)	(18.1)	(10.4)ppts	3.9 ppts	(14.0)ppts	(20.3)	(8.2)ppts	(16.6)	(6.3)	(10.3)ppts	11.8 ppts	9.6 ppts	(11.1)	(5.5)ppts

Source: KGI Research

Figure 6: Breakdown of 2023 results & 2024 forecast revisions vs. consensus

NT\$m	2023						2024F					
	Result	KGI forecast	Diff. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)
Sales	29,892	29,755	0.5	(47.5)	29,895	(0.0)	58,336	58,319	0.0	95.2	51,284	13.8
Gross profit	(4,483)	(3,878)	-	(121.0)	(4,271)	-	17,947	18,238	(1.6)	(500.3)	11,851	51.4
Operating income	(14,460)	(13,408)	-	(231.4)	(13,417)	-	7,447	8,238	(9.6)	(151.5)	2,307	222.8
Pretax profit	(10,692)	(9,299)	-	(163.4)	(9,262)	-	10,141	10,674	(5.0)	(194.8)	5,385	88.3
Net profit	(7,436)	(6,509)	-	(150.9)	(6,579)	-	8,316	8,753	(5.0)	(211.8)	4,447	87.0
EPS (NT\$)	(2.40)	(2.10)	-	(150.9)	(2.10)	-	2.68	2.83	(5.0)	(211.8)	1.43	87.0
Gross margin (%)	(15.0)	(13.0)	(2.0)ppts	(52.5)ppts	(14.3)	(0.7)ppts	30.8	31.3	(0.5)ppts	45.8 ppts	23.1	7.7 ppts
OP margin (%)	(48.4)	(45.1)	(3.3)ppts	(67.7)ppts	(44.9)	(3.5)ppts	12.8	14.1	(1.4)ppts	61.1 ppts	4.5	8.3 ppts
Net margin (%)	(24.9)	(21.9)	(3.0)ppts	(50.5)ppts	(22.0)	(2.9)ppts	14.3	15.0	(0.8)ppts	39.1 ppts	8.7	5.6 ppts

Source: KGI Research

Figure 7: Nanya Technology's operating metrics

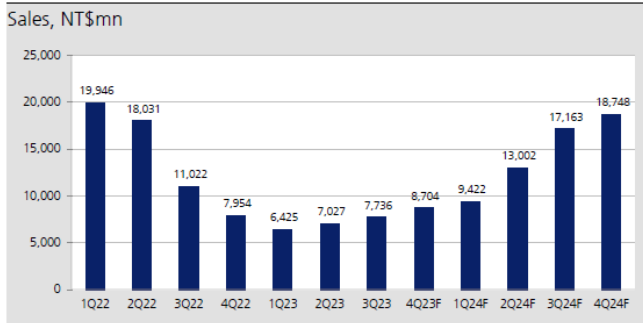
(NT\$m)	1Q23	2Q23	3Q23	4Q23	1Q24F	2Q24F	3Q24F	4Q24F	2022	2023	2024F	2025F
Revenue	6,425	7,027	7,736	8,704	9,422	13,002	17,163	18,748	56,952	29,892	58,336	77,004
Wafer start(k wpm)	53	58	54	52	53	55	60	60	68	54	57	62
Utilization(%)	88	97	90	87	88	92	100	100	96	90	95	98
Shipment(mn Gb)	636	731	862	957	957	1,101	1,211	1,191	3,312	3,186	4,460	4,906
QoQ(%)	(7)	15	18	11	0	15	10	(2)				
YoY(%)	(36)	(20)	21	39	51	51	40	24	(26)	(4)	40	10
Price(US\$/Gb)	0.33	0.31	0.28	0.29	0.32	0.38	0.46	0.51	0.58	0.30	0.42	0.51
QoQ(%)	(10)	(7)	(10)	3	10	20	20	11				
YoY(%)	(53)	(53)	(44)	(22)	(5)	22	62	76	(16)	(48)	40	20
COGS	6,979	7,815	9,689	9,892	9,513	10,359	10,257	10,260	35,610	34,375	40,389	44,378
Unit cost(US\$/Gb)	0.36	0.35	0.35	0.33	0.32	0.30	0.27	0.28	0.36	0.35	0.29	0.29
Depreciation	3,694	3,758	3,789	3,784	3,875	3,875	3,875	3,875	14,988	15,025	15,500	17,000
Unit depreciation(US\$/Gb)	0.19	0.17	0.14	0.13	0.13	0.11	0.10	0.10	0.15	0.15	0.11	0.11
Capex	5,817	2,808	2,431	2,189	3,750	3,750	3,750	3,750	20,711	13,245	15,000	15,000
Variable cost	3,285	4,057	5,900	6,108	5,638	6,484	6,382	6,385	20,622	19,350	24,889	27,378
Unit variable cost(US\$/Gb)	0.17	0.18	0.21	0.20	0.19	0.19	0.17	0.17	0.21	0.20	0.18	0.18
Gross profit	(554)	(788)	(1,953)	(1,188)	(91)	2,644	6,907	8,488	21,342	(4,483)	17,947	32,626
Gross margin(%)	(9)	(11)	(25)	(14)	(1)	20	40	45	37	(15)	31	42
Operating income	(2,885)	(3,185)	(4,340)	(4,050)	(2,701)	26	4,274	5,848	11,002	(14,460)	7,447	22,626
EBITDA	873	663	(475)	(196)	1,244	3,971	8,219	9,793	26,249	865	23,227	39,906
Non-op income/loss	773	1,264	1,198	521	794	674	674	554	5,875	3,756	2,694	2,486
Income tax	(428)	(1,150)	(638)	(1,041)	(343)	126	891	1,152	2,258	(3,256)	1,825	4,520
Tax rate(%)	20	60	20	30	18	18	18	18	13	30	18	18
Net income	(1,685)	(771)	(2,505)	(2,488)	(1,564)	574	4,057	5,249	14,619	(7,448)	8,316	20,592
EPS(NT\$)	(0.54)	(0.25)	(0.81)	(0.80)	(0.50)	0.19	1.31	1.69	4.72	(2.40)	2.68	6.65

Source: Gartner, KGI Research

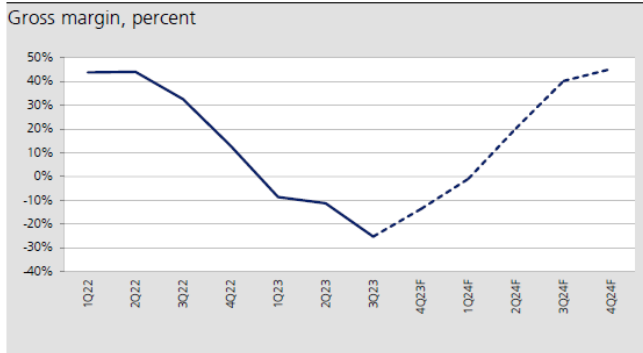
Figure 8: Company profile

Founded in 1995, Nanya Technology is a DRAM maker within Formosa Plastics Group (FPG), with production based in New Taipei City. Nanya Technology buys semiconductor silicon wafers, mainly from Formosa Sumco (3532 TT, NT\$163.5, NR) to make DRAM, which is tested and packaged by Formosa Advanced Technologies (8131 TT, NT\$38.05, NR), for use in niche consumer applications and PCs. Formosa Sumco and Formosa Advanced Technologies are member companies of Formosa Plastics Group.

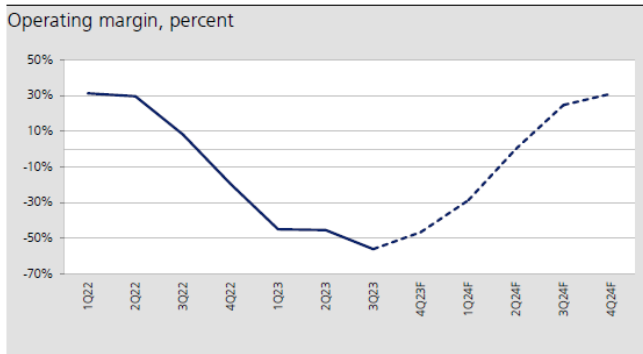
Source: KGI Research

Figure 10: Sales


Source: KGI Research

Figure 12: Gross Margin


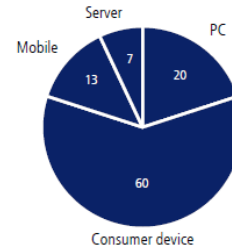
Source: KGI Research

Figure 14: Operating Margin


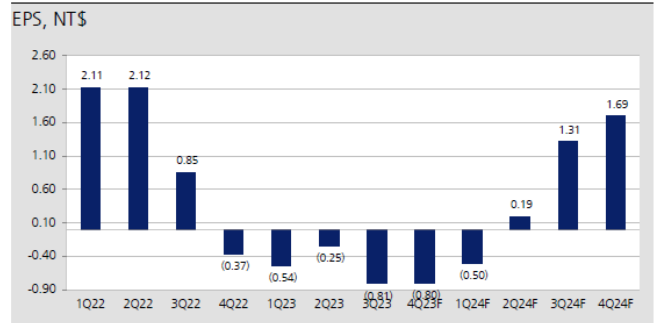
Source: KGI Research

Figure 9: Consumer DRAM is key sales contributor

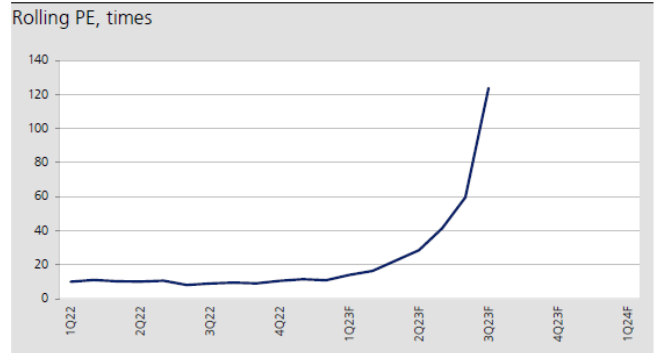
Sales weighting by application in 2020, percent



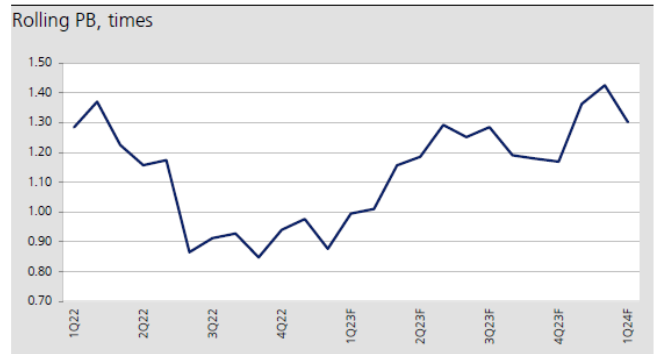
Source: KGI Research

Figure 11: EPS


Source: KGI Research

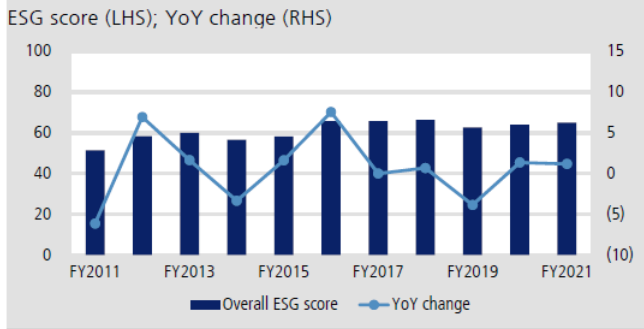
Figure 13: Rolling PE


Source: KGI Research

Figure 15: Rolling PB


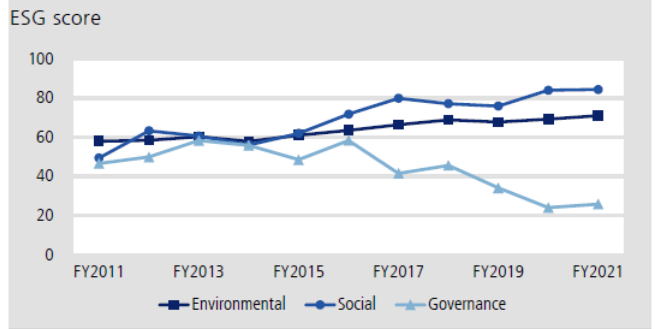
Source: KGI Research

Figure 16: Overall ESG score



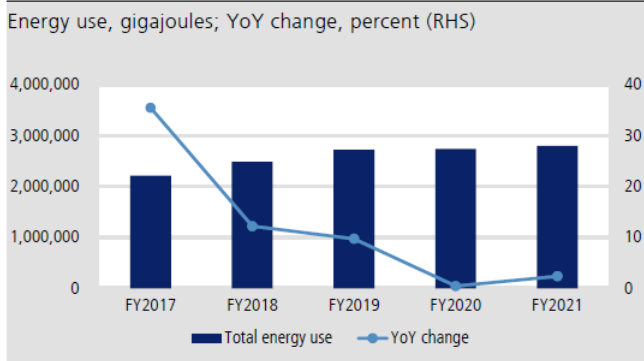
Source: Refinitiv, Company data

Figure 17: ESG scores



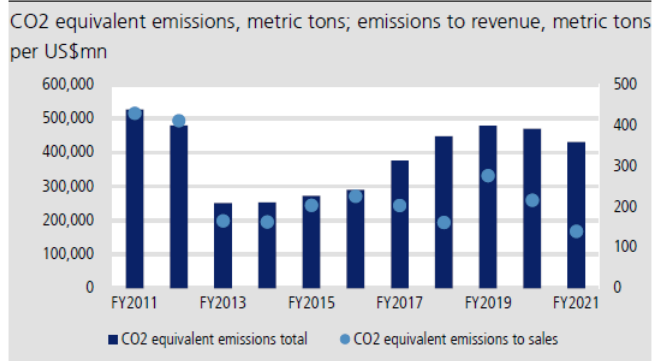
Source: Refinitiv, Company data

Figure 18: Energy Use



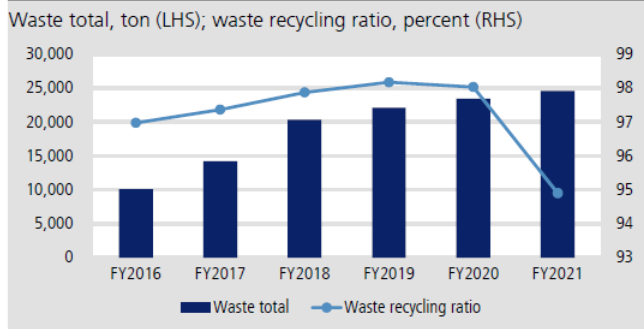
Source: Refinitiv, Company data

Figure 19: CO2 equivalent emissions



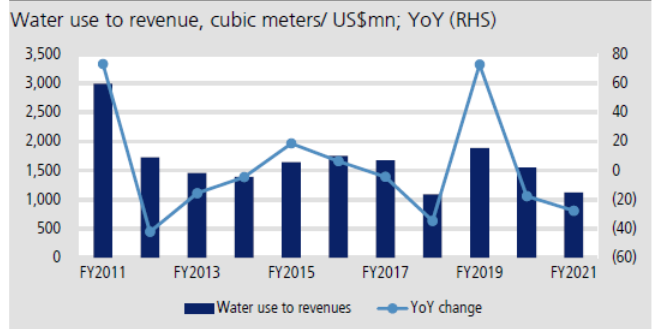
Source: Refinitiv, Company data

Figure 20: Waste total



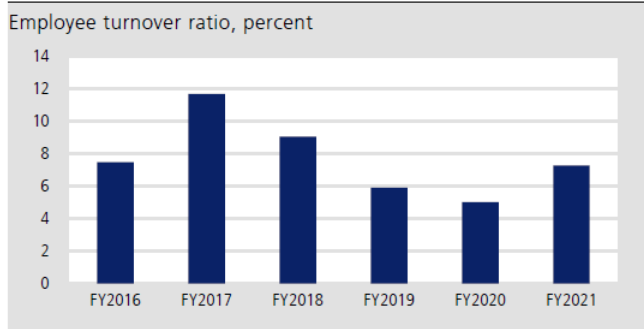
Source: Refinitiv, Company data

Figure 21: Water use to revenue



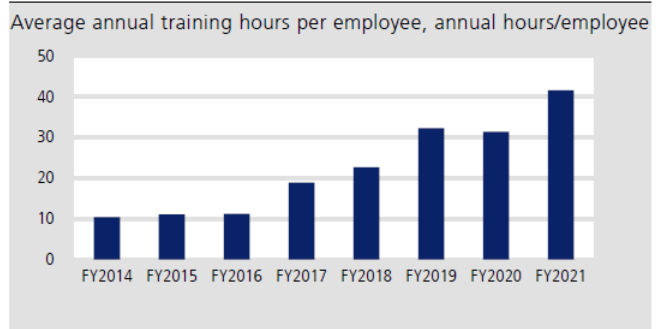
Source: Refinitiv, Company data

Figure 22: Employee turnover



Source: Refinitiv, Company data

Figure 23: Employee training



Source: Refinitiv, Company data

ESG chart definition

Item	Definition	Remarks
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	

Source: Refinitiv; Company data, KGI Research

Income statement

	Quarterly								Annually		
	Mar-23A	Jun-23A	Sep-23A	Dec-23F	Mar-24F	Jun-24F	Sep-24F	Dec-24F	Dec-23F	Dec-24F	Dec-25F
Income statement (NT\$mn)											
Revenue	6,425	7,027	7,736	8,704	9,422	13,002	17,163	18,748	29,892	58,336	77,004
Cost of goods sold	(6,979)	(7,815)	(9,689)	(9,892)	(9,513)	(10,359)	(10,257)	(10,260)	(34,375)	(40,389)	(44,378)
Gross profit	(554)	(788)	(1,953)	(1,188)	(91)	2,644	6,907	8,488	(4,483)	17,947	32,626
Operating expenses	(2,331)	(2,396)	(2,387)	(2,862)	(2,610)	(2,618)	(2,633)	(2,640)	(9,977)	(10,500)	(10,000)
Operating profit	(2,885)	(3,185)	(4,340)	(4,050)	(2,701)	26	4,274	5,848	(14,460)	7,447	22,626
Depreciation of fixed assets	(3,694)	(3,758)	(3,789)	(3,859)	(3,875)	(3,875)	(3,875)	(3,875)	(15,100)	(15,500)	(15,500)
Amortisation of intangible assets	(64)	(89)	(76)	(28)	(65)	(65)	(65)	(65)	(258)	(258)	(258)
EBITDA	873	663	(475)	(163)	1,238	3,966	8,214	9,788	898	23,205	38,384
Interest income	720	777	779	724	720	600	600	480	3,000	2,400	2,000
Investment income	39	127	26	65	96	96	96	96	256	384	576
Other non-op income	0	(0)	(0)	662	40	40	40	40	662	160	160
Non-operating income	759	903	805	1,451	856	736	736	616	3,918	2,944	2,736
Interest expense	(18)	(20)	(45)	(67)	(63)	(63)	(63)	(63)	(150)	(250)	(250)
Investment loss	-	-	-	-	-	-	-	-	-	-	-
Other non-op expenses	32	381	438	(850)	-	-	-	-	-	-	-
Non-operating expenses	14	361	393	(917)	(63)	(63)	(63)	(63)	(150)	(250)	(250)
Pre-tax profit	(2,112)	(1,920)	(3,142)	(3,517)	(1,908)	700	4,948	6,401	(10,692)	10,141	25,112
Current taxation	428	1,150	638	1,041	343	(126)	(891)	(1,152)	3,256	(1,825)	(4,520)
Minorities	-	-	-	-	-	-	-	-	-	-	-
Normalised net profit	(1,685)	(771)	(2,505)	(2,476)	(1,564)	574	4,057	5,249	(7,436)	8,316	20,592
Extraordinary items	0	0	0	(0)	-	-	-	-	-	-	-
Net profit	(1,685)	(771)	(2,505)	(2,476)	(1,564)	574	4,057	5,249	(7,436)	8,316	20,592
EPS (NT\$)	(0.54)	(0.25)	(0.81)	(0.80)	(0.50)	0.19	1.31	1.69	(2.40)	2.68	6.65
Margins (%)											
Gross profit margin	(8.6)	(11.2)	(25.2)	(13.6)	(1.0)	20.3	40.2	45.3	(15.0)	30.8	42.4
Operating margin	(44.9)	(45.3)	(56.1)	(46.5)	(28.7)	0.2	24.9	31.2	(48.4)	12.8	29.4
EBITDA margin	13.6	9.4	(6.1)	(1.9)	13.1	30.5	47.9	52.2	3.0	39.8	49.8
Pretax profit margin	(32.9)	(27.3)	(40.6)	(40.4)	(20.2)	5.4	28.8	34.1	(35.8)	17.4	32.6
Net profit margin	(26.2)	(11.0)	(32.4)	(28.4)	(16.6)	4.4	23.6	28.0	(24.9)	14.3	26.7
Sequential growth (%)											
Revenue growth	(19.2)	9.4	10.1	12.5	8.3	38.0	32.0	9.2			
Gross profit growth	(153.4)	42.3	147.7	(39.2)	(92.3)		161.3	22.9			
Operating profit growth	86.9	10.4	36.3	(6.7)	(33.3)		16338.7	36.8			
EBITDA growth	(60.6)	(24.1)	(171.6)	(65.7)		220.2	107.1	19.2			
Pretax profit growth	48.9	(9.1)	63.6	11.9	(45.8)		607.3	29.4			
Net profit growth	47.0	(54.2)	224.9	(1.1)	(36.8)		607.3	29.4			
YoY growth (%)											
Revenue growth	(67.8)	(61.0)	(29.8)	9.4	46.6	85.0	121.9	115.4	(47.5)	95.2	32.0
Gross profit growth	(106.3)	(109.9)	(154.3)	(214.6)	(83.6)				(121.0)		81.8
Operating profit growth	(146.1)	(159.4)	(571.7)	162.3	(6.4)				(231.4)		203.8
EBITDA growth	(91.4)	(92.8)	(110.1)	(107.4)	41.8	498.3			(96.6)	2483.7	65.4
Pretax profit growth	(126.3)	(127.0)	(199.4)	147.9	(9.7)				(163.4)		147.6
Net profit growth	(125.7)	(111.7)	(194.8)	116.0	(7.1)				(150.9)		147.6

Source: Company data, KGI Research estimates

Balance sheet

NT\$m	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Total assets	191,421	202,236	183,400	190,786	207,661
Current assets	106,460	105,512	86,849	94,610	111,666
Cash & ST securities	80,700	73,593	49,730	55,691	70,947
Inventory	11,611	23,384	28,042	28,042	28,042
Accounts receivable	11,569	4,359	5,049	5,049	5,049
Other current assets	2,580	4,175	4,028	5,828	7,628
Non-current assets	84,961	96,723	96,550	96,176	95,994
LT investments	5,350	6,131	5,986	6,370	6,946
Net fixed assets	76,207	84,897	82,838	82,338	81,838
Other assets	3,404	5,695	7,727	7,469	7,211
Total liabilities	18,443	21,278	13,879	13,879	13,879
Current liabilities	15,692	16,179	8,410	8,410	8,410
Accounts payable	2,850	5,604	2,834	2,834	2,834
Interest bearing ST liabilities	-	-	-	-	-
Other current liabilities	12,842	10,575	5,575	5,575	5,575
Non-current liabilities	2,751	5,099	5,469	5,469	5,469
Long-term debt	-	-	-	-	-
Other L-T liabilities	1,242	898	5,469	5,469	5,469
Total equity	172,978	180,958	169,521	176,908	193,782
Share capital	30,973	30,981	30,981	30,981	30,981
Retained earnings reserve	95,426	95,267	86,902	91,500	102,799
Minority interests	-	-	-	-	-
Preferred shareholders funds	-	-	-	-	-

Key ratios

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Growth					
Revenue growth	40.3%	(33.5%)	(47.5%)	95.2%	32.0%
Operating profit growth	222.3%	(59.5%)	(231.4%)	-	203.8%
EBITDA growth	85.6%	(38.2%)	(96.6%)	2483.7%	65.4%
Net profit growth	197.3%	(36.0%)	(150.9%)	-	147.6%
EPS growth	195.2%	(36.2%)	(150.9%)	-	147.6%
Profitability					
Gross profit margin	43.3%	37.5%	(15.0%)	30.8%	42.4%
Operating margin	31.8%	19.3%	(48.4%)	12.8%	29.4%
EBITDA margin	49.6%	46.1%	3.0%	39.8%	49.8%
Net profit margin	26.7%	25.7%	(24.9%)	14.3%	26.7%
Return on average assets	12.8%	7.4%	(3.9%)	4.4%	10.3%
Return on average equity	14.0%	8.3%	(4.2%)	4.8%	11.1%
Stability					
Gross debt to equity	0.0%	0.0%	0.0%	0.0%	0.0%
Net debt to equity	Net cash	Net cash	Net cash	Net cash	Net cash
Interest coverage (x)	1,174.3	344.6	(70.3)	41.6	101.4
Interest & ST debt coverage (x)	1.0	1.0	1.0	1.0	1.0
Cash flow interest coverage(x)	1,863.7	429.1	(15.1)	87.6	135.9
Cash flow/int. & ST debt (x)	1,863.7	429.1	(15.1)	87.6	135.9
Current ratio (x)	6.8	6.5	10.3	11.3	13.3
Quick ratio (x)	6.0	5.1	7.0	7.9	9.9
Net debt (NT\$m)	(80,700)	(73,593)	(49,730)	(55,691)	(70,947)
Per share data					
EPS (NT\$)	7.40	4.72	(2.40)	2.68	6.65
CFPS (NT\$)	14.29	6.81	(0.73)	7.07	10.97
BVPS (NT\$)	55.85	58.41	54.73	57.11	62.56
Adj BVPS (NT\$)	56.03	58.42	54.73	57.11	62.56
SPS (NT\$)	27.73	18.39	9.65	18.83	24.86
EBITDA/share (NT\$)	13.76	8.47	0.29	7.49	12.39
Cash DPS (NT\$)	3.70	2.13	0.30	1.20	3.00
Activity					
Sales / avg assets	0.48	0.29	0.16	0.31	0.39
Days receivable	49.3	27.9	61.7	31.7	23.9
Days inventory	87.3	239.7	297.8	254.1	230.6
Days payable	21.4	57.4	30.1	25.7	23.3
Cash cycle	115.2	210.2	329.3	260.1	231.3

Source: Company data, KGI Research estimates

Profit & loss

NT\$m	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue	85,604	56,952	29,892	58,336	77,004
Cost of goods sold	(48,560)	(35,610)	(34,375)	(40,389)	(44,378)
Gross profit	37,044	21,342	(4,483)	17,947	32,626
Operating expenses	(9,858)	(10,340)	(9,977)	(10,500)	(10,000)
Operating profit	27,186	11,002	(14,460)	7,447	22,626
Non-operating income	795	2,483	3,918	2,944	2,736
Interest income	274	1,395	3,000	2,400	2,000
Investment income	521	574	256	384	576
Other non-op income	-	514	662	160	160
Non-operating expenses	(214)	3,392	(150)	(250)	(250)
Interest expense	(24)	(49)	(150)	(250)	(250)
Investment loss	-	-	-	-	-
Other non-op expenses	(190)	3,441	-	-	-
Pre-tax profit	27,767	16,877	(10,692)	10,141	25,112
Current taxation	(4,918)	(2,258)	3,256	(1,825)	(4,520)
Minorities	-	-	-	-	-
Extraordinary items	-	0	-	-	-
Net profit	22,849	14,619	(7,436)	8,316	20,592
EBITDA	42,480	26,249	898	23,205	38,384
EPS (NT\$)	7.40	4.72	(2.40)	2.68	6.65

Cash flow

NT\$m	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Operations cash flow	44,107	21,082	(2,263)	21,890	33,974
Net profit	22,849	14,619	(7,436)	8,316	20,592
Depreciation & amortisation	15,294	15,247	15,358	15,758	15,758
Decrease in working capital	(535)	(4,685)	(7,299)	(4,588)	(7,376)
Other operating cash flow	6,499	(4,099)	(2,887)	2,404	5,000
Investing cash flow	(10,930)	(20,868)	(15,000)	(15,000)	(15,000)
Sale of ST investment	(12)	(729)	-	-	-
New investments	-	-	-	-	-
Capital expenditure	(11,260)	(20,711)	(15,000)	(15,000)	(15,000)
Others investing cashflow	342	572	-	-	-
Free cash flow	25,610	(877)	(17,255)	2,019	11,677
Financing cash flow	(3,060)	(11,771)	(6,600)	(929)	(3,717)
Increase in short term debt	-	-	-	-	-
Increase in long term loans	-	-	-	-	-
New ordinary shares issued	-	-	-	-	-
Ordinary dividends paid	(4,000)	(11,470)	(6,600)	(929)	(3,717)
Other financing cashflow	(168)	(301)	-	-	-
Forex effects	(1,143)	4,451	-	-	-
Total cash generated	28,974	(7,107)	(23,863)	5,960	15,257

ROIC

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
1 - COGS/revenue					
- Operating exp./revenue	11.5%	18.2%	33.4%	18.0%	13.0%
= Operating margin	31.8%	19.3%	(48.4%)	12.8%	29.4%
1 / (Working capital/revenue	0.1	0.3	1.0	0.5	0.4
+ Net PPE/revenue	0.9	1.5	2.8	1.4	1.1
+ Other assets/revenue)	0.0	0.0	0.2	0.1	0.1
= Capital turnover	1.0	0.6	0.3	0.5	0.6
Operating margin	31.8%	19.3%	(48.4%)	12.8%	29.4%
x Capital turnover	1.0	0.6	0.3	0.5	0.6
x (1 - tax rate)	82.3%	86.6%	69.5%	82.0%	82.0%
= After-tax ROIC	25.8%	9.5%	(8.5%)	5.1%	15.4%

Source: Company data, KGI Research estimates

Nanya Technology – Recommendation & target price history


Date	Rating	Target	Price
2023-10-11	Outperform	85.0	70.7
2023-09-14	Outperform	85.0	70.0
2023-07-10	Outperform	86.0	69.7
2023-06-13	Outperform	86.0	74.8
2023-04-11	Neutral	69.0	68.2
2023-03-31	Neutral	69.0	66.5
2023-03-28	Underperform	43.0	62.5
2023-01-10	Underperform	43.0	56.5
2022-11-29	Underperform	43.0	57.2
2022-10-13	Neutral	43.0	51.4

Source: TEJ, KGI Research

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