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22nd Century Group, Inc. (NASDAQ: XXII)

February 1, 2023

Buy: Major Catalysts Expected this Year. Upside to Estimates

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We expect major catalysts for both of 22nd Century's two major business lines this year. We forecast sales and margins will improve as the year unfolds due to expanded manufacturing capacity, growing distribution, better pricing, increased market share and reduced regulatory uncertainty. We reiterate our Buy recommendation and \$8.50 price target.

We expect major catalysts this year for both of 22nd Century's two major business lines, VLN and CBD. We believe our revenue and EBITDA estimates for the year are conservative and the company will likely exceed them. Like most stocks in the small-cap space, the share price suffered in 2022 and has been marking time. However, with the pace of the Fed's interest rate hikes diminishing, we believe investors will increasingly search for growth that could benefit stocks like XXII which has a clear path to improved revenue and EBITDA generation.

The company's VLN business should have major internal and external catalysts this year. Expansion into the country's largest cigarette markets will continue this year and we expect VLN to be available in most or all of the 18 states that generate over half of cigarette sales in the United States by year-end. The company is expanding its distribution partnerships and we expect additional announcements as the year progresses along with entry into additional states. We currently forecast VLN revenue this year of just under \$7 million and believe this is conservative and likely to be exceeded. The company has line of sight to 1% market share in short order in markets entered and expects to increase share from there.

We estimate a 1% market share of the domestic combustible cigarette market could be worth over \$2 billion, or over \$10 per share. In 2021 Altria generated \$22.9 billion in sales (including excise taxes) from smokeable products. Using its estimated market share of 48.8% puts the domestic combustible market for manufacturers at almost \$47 billion. (The retail market is about \$80 billion). 1% share of this market equates to \$470 million in sales and using the 5x EV/Sales multiple Altria (and Philip Morris International) trade at suggests a value of 1% market share of \$2.4 billion.

Regulatory action by the FDA and the states are also likely positive catalysts for the company this year. The FDA has indicated it expects a final rule on the menthol ban in combustible cigarettes by August, and our current expectation is that 22nd Century's menthol VLN would be exempted, leaving it the sole menthol option on the market when the ban is fully implemented. Some states, like California and Massachusetts, have already banned menthol cigarettes and action by the FDA and/or their own regulatory actions could result in a pathway for sales of menthol VLN in those states. (Continued on page 2).

Valuation: Our \$8.50 price target is the sum of: An estimated \$4.58/share for the VLN asset, \$3.18/share for the low-nicotine mandate and \$0.74 for the hemp/cannabis franchise.

Risks to Target include, among others: Our price target assumes the company launches VLN pilots in test markets this year and this could take longer than estimated, and/or its partner could demand different terms than assumed. Our price target also assumes a nicotine mandate. The nicotine mandate may take longer to decide, and the transition period could be longer than estimated. See the Risks Analysis section for additional risks.

Current Price				\$1.10
Price Target				\$8.50
Estimates	F2021A	F2022E	F2023E	
Revenues (\$M's)	\$ 30.9	\$ 59.4	E \$ 86.0	
1Q March	\$ 6.8	\$ 9.0	A \$ 18.3	
2Q June	\$ 8.4	\$ 14.5	A \$ 20.5	
3Q September	\$ 7.8	\$ 19.4	A \$ 21.4	
4Q December	\$ 8.0	\$ 16.5	E \$ 25.8	
	F2021A	F2022E	F2023E	
EPS (diluted)	\$ (0.21)	\$ (0.25)	E \$ (0.23)	
1Q March	\$ (0.03)	\$ (0.05)	A \$ (0.06)	
2Q June	\$ (0.03)	\$ (0.06)	A \$ (0.06)	
3Q September	\$ (0.06)	\$ (0.06)	A \$ (0.06)	
4Q December	\$ (0.09)	\$ (0.07)	E \$ (0.05)	
EBITDA (\$Ms)	\$ (23.2)	\$ (35.0)	\$ (34.9)	
EV/EBITDA (x)	-10.2x	-6.8x	-6.8x	
Stock Data				
52-Week Range	\$0.82	-	\$2.71	
Shares Outstanding (mil.)				215.3
Market Capitalization (mil.)				\$237
Enterprise Value (mil.)				\$237
Debt to Capital				7%
Cash (mil.)				\$43.7
Cash/share				\$0.20
Average Three Months Trading Volume (K)				1,508
Insider Ownership				2.6%
Institutional Ownership				20.8%
Short interest (mil.)				7.4%
Dividend / Yield				\$0.00/0.0%



The nicotine mandate is also expected to move forward this year, with the FDA indicating a Notice of Proposed Rulemaking (NPRM) by October. This would put the FDA on track for a final rule by mid-2024. We value a nicotine mandate at over \$3 per share for XXII.

We forecast the company's CBD business will generate about 45% of sales this year and expect sales and margins to improve as the year progresses. 22nd Century's Prineville extraction facility will lower costs and lead to higher isolate margins as volume scales throughout the year. Our Q4 2022 revenue estimate reflects a very cautious view of the impact of the company's Grass Valley hemp refinement facility in Oregon, and there is likely an opportunity for the company to exceed our expectations.

The company is positioning itself for rapid growth and margin improvement in the global CBD market. It recently purchased RX Pharmatech Ltd. for \$650 thousand in cash and stock with an earn-out based on future sales. RX has almost 1,300 novel food applications with the UK's Food Standards Agency, which will be used as a springboard for the UK and EU nutraceutical, food and beverage market when regulatory standards are developed.

The 2018 Farm Bill legalized hemp with less than 0.03% THC. This opened up the largely unregulated CBD market that has grown rapidly since then, but greater regulatory certainty is needed before the major pharma and food and beverage companies introduce products with CBD. The 2023 Farm Bill could be the mechanism to provide the authority the FDA is seeking and the certainty the industry desires. Importantly, as the market continues to grow rapidly regardless of the lack of FDA rules, 22nd Century is benefiting from this growth, is increasing market share, and has noticed a firming of pricing and margins. It has also filed a DMF (Drug Master File) for CBD API that will enable it to supply high-quality pharmaceutical-grade API to the pharmaceutical industry and OTC markets.

Valuation. Our price target of \$8.50 comprises three components: We attribute about \$4.58/share for the VLN asset. The non-addictive nicotine mandate is valued at \$3.18 per share. The remainder of the price target, or \$0.74 per share, equals about \$112 million and encompasses the company's investment in Exactus, the Anandia licenses and the potential from its relationship with KeyGene. We have assumed a long gestation period for the hemp/cannabis business because it is in the early stages. However, the Aurora announcement and the restructuring of the Panacea/Exactus investment could be catalysts for more rapid development of the market and 22nd Century's monetization efforts.

Risk Analysis

Our price target assumes the company launches VLN pilots in test markets this year, and this could take longer than estimated and/or its launch partner could demand different terms than assumed. Our price target also assumes a nicotine mandate. The nicotine mandate may take longer to decide, and the transition period could be longer than estimated. There will likely be other paths attempted by the industry to comply, or the industry may opt to focus on other nicotine delivery systems as regulation of the combustible cigarette market increases. This could affect our assumptions on the royalty rate as well as market share.

Exhibit 1. Income Statement

<i>(\$ in 000's except per-share data)</i>	2019	2020	2021	Q1 22 A	Q2 22 A	Q3 22 A	Q4 22 E	2022 E	2023 E
Revenue	\$ 25,833	\$ 28,111	\$ 30,948	\$ 9,045	\$ 14,477	\$ 19,383	\$ 16,500	\$ 59,405	\$ 85,966
Cost Of Goods Sold	25,818	26,673	28,879	8,585	13,585	18,764	14,850	55,784	71,921
Gross Profit	14	1,438	2,069	460	892	619	1,650	3,621	14,045
	0.1%	5.1%	6.7%	5.1%	6.2%	3.2%	10.0%	6.1%	16.3%
R&D	8,057	4,128	3,274	972	1,897	1,318	1,318	5,505	5,272
G&A	12,956	14,971	25,881	7,305	9,471	14,569	14,069	45,414	56,979
Impairment Charge	1,142	176	78	0	0	0	0	0	0
Depreciation & Amort.	1,425	1,346	1,248	329	0	0	0	329	0
Opex	23,581	20,621	30,481	8,606	11,368	15,887	15,387	51,248	62,251
Operating Income	\$ (23,566)	\$ (19,183)	\$ (28,412)	\$ (8,146)	\$ (10,476)	\$ (15,268)	\$ (13,737)	\$ (47,627)	\$ (48,207)
Interest and other, net	(2,992)	(490)	(4,183)	(772)	(1,022)	(415)	(478)	(2,687)	(1,912)
Pretax Income	(26,559)	(19,673)	(32,595)	(8,918)	(11,498)	(15,683)	(14,215)	(50,314)	(50,119)
Income Tax Expense	0	38	14	0	0	(2,581)	0	0	0
Net to Common	\$ (26,559)	\$ (19,711)	\$ (32,609)	\$ (8,918)	\$ (11,498)	\$ (13,102)	\$ (14,215)	\$ (50,314)	\$ (50,119)
Shares (000)	125,883	138,813	156,208	163,157	182,044	210,131	215,302	192,658	215,689
EPS	(\$0.21)	(\$0.14)	(\$0.21)	(\$0.05)	(\$0.06)	(\$0.06)	(\$0.07)	(\$0.26)	(\$0.23)
D&A	1,425	1,346	1,248	421	503	1,068	1,068	3,060	4,272
Stock Comp	3,540	1,654	3,983	1,213	1,106	2,247	2,247	6,813	8,988
Other	1,142	176	0	0	1,765	978	0	2,743	0
EBITDA	\$ (17,459)	\$ (16,007)	\$ (23,181)	\$ (6,512)	\$ (7,102)	\$ (10,975)	\$ (10,422)	\$ (35,011)	\$ (34,947)

Source: 22nd Century Group, Inc. and Dawson James Securities estimates

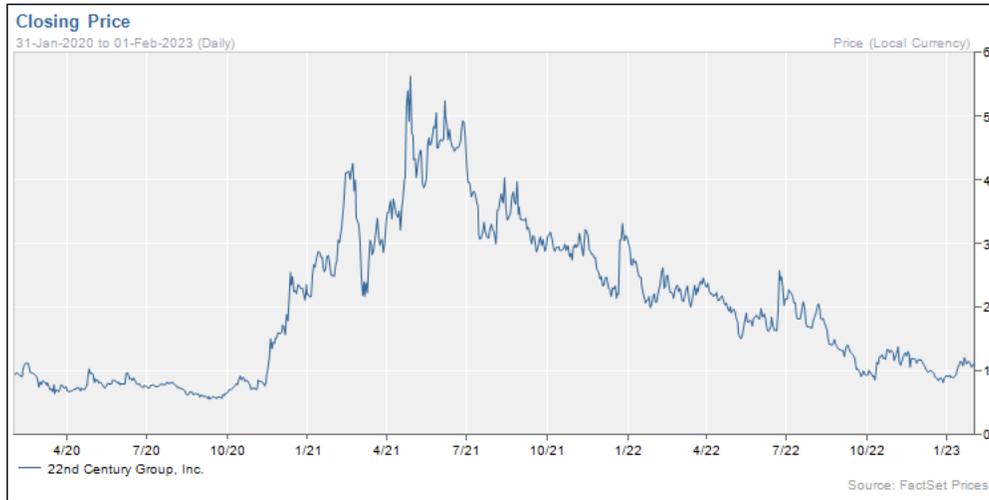
Exhibit 2. Balance Sheet and Cash Flow Statement

(\$ in 000's)	2019	2020	2021	2022 E	2023 E
Cash	485	1,029	1,336	2,364	2,364
Short-Term Investments	38,477	21,313	47,400	35,131	(4,773)
A/R	867	2,159	585	2,712	7,073
Inventory	2,266	2,034	2,881	9,706	7,890
Prepaid Exp.	648	1,806	2,183	3,463	3,463
Total Current Assets	\$ 42,743	\$ 28,341	\$ 54,385	\$ 53,376	\$ 16,017
PP&E	3,120	2,483	5,841	17,489	14,329
Operating Lease	602	247	1,723	2,429	2,429
Goodwill		0	0	33,748	33,748
Patent, Trademark, other intangibles	8,494	8,211	7,919	18,283	18,071
Equity Investment	8,403	6,536	2,345	981	981
Other Assets	5,589	5,876	3,741	4,002	4,002
Total Assets	\$ 68,951	\$ 51,694	\$ 75,954	\$ 130,308	\$ 89,577
Bank Loans and N/P	581	539	596	5,825	5,825
Operating Lease	220	247	308	927	927
A/P	1,998	1,116	2,173	5,787	5,787
Accrued Expenses & Payroll	2,619	4,830	5,014	3,511	3,511
Accrued excise taxes and fees		0	0	1,525	1,525
Deferred Income	5	272	119	693	693
Accrued Severance	359	339	217	397	397
Total Current Liabilities	\$ 5,780	\$ 7,343	\$ 8,427	\$ 18,665	\$ 18,665
Long-Term Debt	292	0	0	220	220
Operating Lease	382	0	1,432	1,592	1,592
Accrued Severance	446	241	21	0	0
Shareholders' Equity	62,051	44,110	66,074	109,220	68,489
Total Liabilities And Equity	\$ 68,951	\$ 51,694	\$ 75,954	\$ 130,308	\$ 89,577
	2019	2020	2021	2022 E	2023 E
Net Income	(26,559)	(19,711)	(32,609)	(47,733)	(50,119)
Depreciation & Amort.	1,425	1,345	1,248	3,060	4,272
Stock Comp	3,540	1,654	3,983	6,813	8,988
Other	7,249	2,722	5,272	3,844	0
Working Capital	(242)	(1,631)	(733)	(4,733)	(2,545)
Operating Cash Flow	\$ (14,587)	\$ (15,621)	\$ (22,839)	\$ (38,749)	\$ (39,404)
Acquisition of Patents and trademarks	(515)	(468)	(326)	(519)	(500)
CapEx	(527)	(54)	(745)	(2,601)	(400)
Other	5,595	16,991	(26,658)	3,275	0
Investing Activities	\$ 4,552	\$ 16,469	\$ (27,729)	\$ 155	\$ (900)
Debt	(700)	(354)	49	638	0
Equity	10,616	50	50,826	32,758	400
Other	0	0	0	0	0
Financing Activities	\$ 9,916	\$ (304)	\$ 50,875	\$ 33,396	\$ 400
Change in Cash	(\$120)	\$ 544	\$ 307	(\$5,198)	(\$39,904)

Source: 22nd Century Group, Inc. and Dawson James Securities estimates

Important Disclosures:

Price Chart:



Price target and ratings changes over the past three years:

- Initiated – Buy – April 13, 2021 – Price Target \$7.00
- Update – Buy – April 15, 2021 – Price Target \$7.00
- Update – Buy – April 19, 2021 – Price Target \$7.00
- Update – Buy – May 7, 2021 – Price Target \$7.00
- Update – Buy – June 1, 2021 – Price Target \$7.00
- Update – Buy – June 11, 2021 – Price Target \$7.00
- Update – Buy – July 2, 2021 – Price Target \$7.00
- Update – Buy – July 23, 2021 – Price Target \$7.00
- Update – Buy – August 6, 2021 – Price Target \$7.00
- Update – Buy – August 31, 2021 – Price Target \$7.00
- Update – Buy – October 18, 2021 – Price Target \$7.00
- Update – Buy – November 5, 2021 – Price Target \$7.00
- Update – Buy – November 22, 2021 – Price Target \$7.00
- Update – Buy – December 9, 2021 – Price Target \$7.00
- Update – Buy – December 23, 2021 – Price Target \$7.00
- Price Target Change – Buy – January 6, 2022 – Price Target changed from \$7.00 to \$8.50
- Update – Buy – January 24, 2022 – Price Target \$8.50
- Update – Buy – February 16, 2022 – Price Target \$8.50
- Update – Buy – February 24, 2022 – Price Target \$8.50
- Update – Buy – March 4, 2022 – Price Target \$8.50
- Update – Buy – May 2, 2022 – Price Target \$8.50
- Update – Buy – May 6, 2022 – Price Target \$8.50
- Update – Buy – May 16, 2022 – Price Target \$8.50
- Update – Buy – June 13, 2022 – Price Target \$8.50
- Update – Buy – June 22, 2022 – Price Target \$8.50
- Update – Buy – July 1, 2022 – Price Target \$8.50
- Update – Buy – July 26, 2022 – Price Target \$8.50
- Update – Buy – August 10, 2022 – Price Target \$8.50
- Update – Buy – September 21, 2022 – Price Target \$8.50
- Update – Buy – October 20, 2022 – Price Target \$8.50
- Update – Buy – October 27, 2022 – Price Target \$8.50
- Update – Buy – November 9, 2022 – Price Target \$8.50
- Update – Buy – November 22, 2022 – Price Target \$8.50
- Update – Buy – February 1, 2023 – Price Target \$8.50

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Current as of 30-Jan-23

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	23	70%	1	4%
Market Perform (Neutral)	9	27%	2	22%
Market Underperform (Sell)	1	3%	0	0%
Total	33	100%	3	9%

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