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

March 4, 2022

### Buy: VLN Pilot at Circle K Scheduled to Begin this Month.

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22<sup>nd</sup> Century and Circle K will launch a pilot program this month, selling VLN cigarettes in 150 Chicagoland outlets. This three-to-six-month pilot could lead to a national rollout of VLN in Circle K's 7,000 outlets. Discussions with other regional and national retailers to carry VLN are underway, and we expect additional rollouts.

22<sup>nd</sup> Century and Circle K will begin a pilot program this month, testing consumer response to 22<sup>nd</sup> Century's very low nicotine cigarette, VLN. The FDA has authorized VLN to be offered with the unique claim that VLN "Helps you smoke less," as well as a claim that it contains "95% less nicotine," that it "Helps reduce your nicotine consumption," and that the product "...Greatly reduces your nicotine consumption." The pilot program in 150 Chicagoland stores is expected to last 3-6 months and could be followed by a national rollout to Circle K's 7,000 outlets. 22<sup>nd</sup> Century is also in discussion with other regional and national retailers for sale of VLN.

VLN will have prominent placement, next to other premium cigarettes carried by Circle K. We believe the prominent product placement, the unique claim of the product and marketing efforts by both Circle K and 22<sup>nd</sup> Century will drive consumer demand. The company states the 150 Circle K stores in the pilot sell about 10 million packs annually. Applying the average unit price (including federal excise taxes) Altria generates for its mostly premium cigarettes to the 10 million packs sold results in a \$48 million addressable market, just at these stores, and a \$2.2 billion addressable market at the entire Circle K network assuming the same level of cigarette sales at the 7,000 stores compared to the 150 stores in the pilot.

The CDC indicates about two-thirds of the over 30 million smokers in the U.S. would like to quit and more than half try to quit every year. This will be the first, and only, product in the market with the claim "Helps you smoke less" and it is a claim required by the FDA, not requested by the company, which in our view, is an indication of the strong data supporting the claim. 50% of just the Circle K smoking business is over \$1 billion in annual sales.

The FTC in its "Cigarette Report for 2020," estimated over 203 billion individual cigarettes were sold in the U.S. in 2020. 50% (the number of smokers trying to quit each year) of that number is a total addressable market of almost \$25 billion using the premium price (including the federal excise tax) generated by Altria in 2021.

**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	\$2.18		
Price Target	\$8.50		
Estimates	F2021A	F2022E	F2023E
Revenues (\$000s)	\$ 30,948	\$ 35,260 E	\$ 39,400
1Q March	\$ 6,806	\$ 8,750 E	\$ 9,520
2Q June	\$ 8,371	\$ 8,520 E	\$ 9,700
3Q September	\$ 7,811	\$ 8,870 E	\$ 9,940
4Q December	\$ 7,960	\$ 9,120 E	\$ 10,240
	F2021A	F2022E	F2023E
EPS (diluted)	\$ (0.21)	\$ (0.19)E	\$ (0.19)
1Q March	\$ (0.03)	\$ (0.04)E	\$ (0.05)
2Q June	\$ (0.03)	\$ (0.05)E	\$ (0.05)
3Q September	\$ (0.06)	\$ (0.05)E	\$ (0.05)
4Q December	\$ (0.09)	\$ (0.05)E	\$ (0.05)
EBITDA (\$Ms)	\$ (23.2)	\$ (25.2)	\$ (26.3)
EV/EBITDA (x)	-13.3x	-12.2x	-11.8x
<b>Stock Data</b>			
52-Week Range	\$1.86	-	\$6.07
Shares Outstanding (mil.)	162.9		
Market Capitalization (mil.)	\$355		
Enterprise Value (mil.)	\$309		
Debt to Capital	0%		
Cash (mil.)	\$48.7		
Cash/share	\$0.30		
Average Three Months Trading Volume (K)	1,479		
Insider Ownership	2.3%		
Institutional Ownership	28.2%		
Short interest (mil.)	10.4%		
Dividend / Yield	\$0.00/0.0%		



We have modeled 1% market share in the 150 stores in the Circle K pilot program. The company and Circle K will be evaluating market share, repeat purchases, effectiveness of point of sale displays, impact on the sale of other store items and the impact on foot traffic. Since Circle K will be the only retailer with VLN, and the only retailer with cigarettes with the claim that it “Helps you smoke less,” both 22<sup>nd</sup> Century and Circle K are keen to determine if this product draws in new customers.

The company will need to increase marketing spending this year in order to support the pilot and after the lessons learned from the pilot are evaluated and changes made it will need to support a national rollout. We have increased our estimates of operating expenses for both this year and next to reflect this need, but we have been conservative on our assumptions for sales. Expenses will need to be front-end loaded, and the time it takes for that spending to drive sales is still to be determined. Greater clarity on spending and the impact on sales will come as the pilot progresses.

We have assumed a broader roll-out in 2023 at Circle K, beginning in Q2 and gradually increasing market share. However, we have not included additional regional or national retailers that may begin selling VLN later this year or into next year. We have also not included potential sales in South Korea, where the company has recently signed an agreement to sell VLN in the \$1.6 billion South Korean tobacco market. We think additional international markets will begin selling VLN over the coming quarters.

For this year we assume about \$32 million of contract manufacturing sales, \$3 million from hemp/cannabis and \$360 thousand from VLN. We think there is a wide range of possibilities for VLN this year. The pilot program is designed to evaluate consumer demand, the impact on store sales and traffic and the effectiveness of shelf placement and marketing materials. We expect there will be starts and stops as inputs are changed to evaluate the outputs.

There are multiple catalysts in addition to the VLN program. We expect the FDA to pursue a menthol ban this year. On February 24, 2022, the [FDA submitted to the Office of Management and Budget its proposed rule](#) to ban menthol flavors in cigarettes. This is the first step in a process. If the rule makes it out of OMB, we expect a Notice of Proposed Rulemaking this year and a final rule late this year or next year. We also expect the FDA to pursue a low-nicotine mandate, a project that has been discussed at the FDA for at least a decade. New Zealand is planning on introducing legislation to mandate non-addictive levels of nicotine in combustible cigarettes and we expect other countries to follow suit. The hemp/cannabis franchise is producing meaningful progress with one hemp crop harvested, another expected this year, a license agreement already signed and more on the way.

**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 to more rapid development of the market and 22<sup>nd</sup> 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 E	Q2 22 E	Q3 22 E	Q4 22 E	2022 E	2023 E
Revenue	\$ 25,833	\$ 28,111	\$ 30,948	\$ 8,750	\$ 8,520	\$ 8,870	\$ 9,120	\$ 35,260	\$ 39,400
Cost Of Goods Sold	25,818	26,673	28,879	7,895	7,780	7,955	8,080	31,710	34,484
Gross Profit	14	1,438	2,069	855	740	915	1,040	3,550	4,916
	0.1%	5.1%	6.7%	9.8%	8.7%	10.3%	11.4%	10.1%	12.5%
R&D	8,057	4,128	3,274	850	850	850	850	3,400	3,400
G&A	12,956	14,971	25,881	6,820	7,500	7,500	8,000	29,820	32,222
Impairment Charge	1,142	176	78	0	0	0	0	0	0
Depreciation & Amort.	1,425	1,346	1,248	316	316	316	316	1,264	1,264
Opex	23,581	20,621	30,481	7,986	8,666	8,666	9,166	34,484	36,886
Operating Income	\$ (23,566)	\$ (19,183)	\$ (28,412)	\$ (7,131)	\$ (7,926)	\$ (7,751)	\$ (8,126)	\$ (30,934)	\$ (31,970)
Other	(4,002)	(428)	(4,446)	0	0	0	0	0	0
Impairment Charge	0	(1,741)	0	0	0	0	0	0	0
Interest Income	1,066	1,751	321	50	50	50	50	200	200
Interest Expense	(56)	(72)	(58)	(14)	(14)	(14)	(14)	(56)	(56)
Pretax Income	(26,559)	(19,673)	(32,595)	(7,095)	(7,890)	(7,715)	(8,090)	(30,790)	(31,826)
Income Tax Expense	0	38	14	0	0	0	0	0	0
Net to Common	\$ (26,559)	\$ (19,711)	\$ (32,609)	\$ (7,095)	\$ (7,890)	\$ (7,715)	\$ (8,090)	\$ (30,790)	\$ (31,826)
Shares (000)	125,883	138,813	156,208	162,906	163,188	163,688	164,188	163,493	167,313
EPS	(\$0.21)	(\$0.14)	(\$0.21)	(\$0.04)	(\$0.05)	(\$0.05)	(\$0.05)	(\$0.19)	(\$0.19)
D&A	1,425	1,346	1,248	316	316	316	316	1,264	1,264
Stock Comp	3,540	1,654	3,983	1,112	1,112	1,112	1,112	4,448	4,448
Other	1,142	176	0	0	0	0	0	0	0
EBITDA	\$ (17,459)	\$ (16,007)	\$ (23,181)	\$ (5,703)	\$ (6,498)	\$ (6,323)	\$ (6,698)	\$ (25,222)	\$ (26,258)

Source: 22<sup>nd</sup> Century Group, Inc. and Dawson James Securities estimates

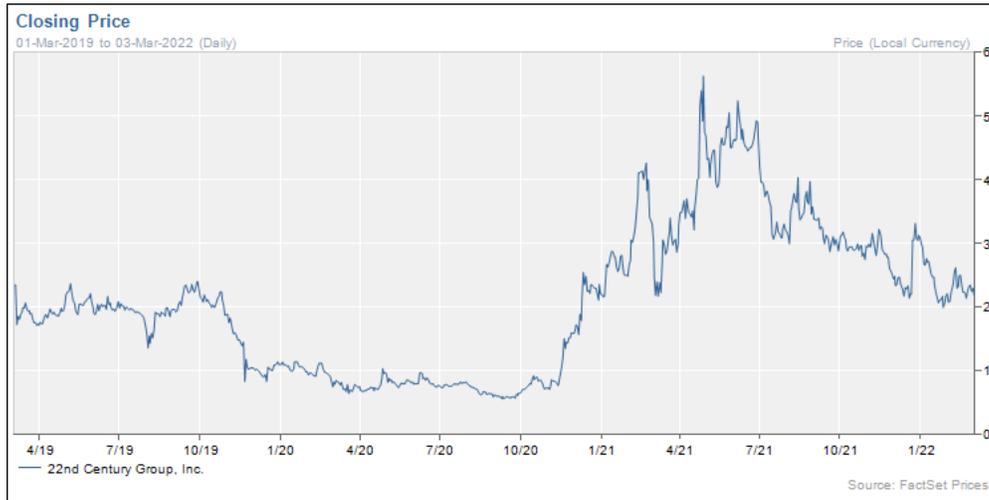
**Exhibit 2. Balance Sheet and Cash Flow Statement**

(\$ in 000's)	2019	2020	2021	2022 E	2023 E
Cash	485	1,029	1,336	1,336	1,336
Short-Term Investments	38,477	21,313	47,400	20,715	12,387
A/R	867	2,159	585	1,499	2,805
Inventory	2,266	2,034	2,881	3,074	3,381
Prepaid Exp.	648	1,806	2,183	2,183	2,183
<b>Total Current Assets</b>	<b>\$ 42,743</b>	<b>\$ 28,341</b>	<b>\$ 54,385</b>	<b>\$ 28,807</b>	<b>\$ 22,093</b>
PP&E	3,120	2,483	5,841	5,553	5,265
Operating Lease	602	247	1,723	1,723	1,723
Patent, Trademark, other intangibles	8,494	8,211	7,919	7,843	7,767
Equity Investment	8,403	6,536	2,345	2,345	2,345
Convertible Note Receivable	5,589	5,876	3,741	3,741	3,741
<b>Total Assets</b>	<b>\$ 68,951</b>	<b>\$ 51,694</b>	<b>\$ 75,954</b>	<b>\$ 50,012</b>	<b>\$ 42,934</b>
Bank Loans and N/P	581	539	596	596	596
Operating Lease	220	247	308	308	308
A/P	1,998	1,116	2,173	2,173	2,173
Accrued Expenses	2,619	4,830	5,014	5,014	5,014
Accrued Severance	359	339	217	217	217
Deferred Income	5	272	119	119	119
<b>Total Current Liabilities</b>	<b>\$ 5,780</b>	<b>\$ 7,343</b>	<b>\$ 8,427</b>	<b>\$ 8,427</b>	<b>\$ 8,427</b>
Long-Term Debt	292	0	0	0	0
Operating Lease	382	0	1,432	1,432	1,432
Accrued Severance	446	241	21	21	21
Shareholders' Equity	62,051	44,110	66,074	40,132	33,054
<b>Total Liabilities And Equity</b>	<b>\$ 68,951</b>	<b>\$ 51,694</b>	<b>\$ 75,954</b>	<b>\$ 50,012</b>	<b>\$ 42,934</b>
	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022 E</b>	<b>2023 E</b>
Net Income	(26,559)	(19,711)	(32,609)	(30,790)	(31,826)
Depreciation & Amort.	1,425	1,345	1,248	1,264	1,264
Stock Comp	3,540	1,654	3,983	4,448	4,448
Other	7,249	2,722	5,272	0	0
Working Capital	(242)	(1,631)	(733)	(1,107)	(1,614)
<b>Operating Cash Flow</b>	<b>\$ (14,587)</b>	<b>\$ (15,621)</b>	<b>\$ (22,839)</b>	<b>\$ (26,185)</b>	<b>\$ (27,728)</b>
Acquisition of Patents and trademarks	(515)	(468)	(326)	(500)	(500)
CapEx	(527)	(54)	(745)	(400)	(400)
Other	5,595	16,991	(26,658)	0	0
<b>Investing Activities</b>	<b>\$ 4,552</b>	<b>\$ 16,469</b>	<b>\$ (27,729)</b>	<b>\$ (900)</b>	<b>\$ (900)</b>
Debt	(700)	(354)	49	0	0
Equity	10,616	50	50,826	400	20,300
Other	0	0	0	0	0
<b>Financing Activities</b>	<b>\$ 9,916</b>	<b>\$ (304)</b>	<b>\$ 50,875</b>	<b>\$ 400</b>	<b>\$ 20,300</b>
Change in Cash	<b>(\$120)</b>	<b>\$ 544</b>	<b>\$ 307</b>	<b>(\$26,685)</b>	<b>(\$8,328)</b>

Source: 22<sup>nd</sup> 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

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- 1) **Buy:** The analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months.
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- 3) **Sell:** The analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

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Current as of... 3-Mar-22

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	31	76%	4	13%
Market Perform (Neutral)	10	24%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	41	100%	4	10%

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