

INSTITUTIONAL RESEARCH *Emerging Growth* UPDATE REPORT

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

Buy: New CEO. Focus on Significant Value of Tobacco IP.

22nd Century announced the appointment of Lawrence (Larry) Firestone as Chairman and CEO. Shortly after his appointment, the company raised \$3.2 million and committed to focusing on the tobacco business and its IP in low-nicotine tobacco.

The appointment of Larry Firestone as CEO is an important step in the recovery of 22^{nd} Century. We believe it is imperative for the company to sharpen its focus, lower costs, negotiate with its debt holder, and strengthen its balance sheet. The initial actions of the company's CEO are encouraging and unlocking the value of its IP in low-nicotine tobacco is key for the shares.

Over the course of this year, the company has suffered from the worst capital market environment for microcap stocks in our memory, a fire at the company's manufacturing facility in Oregon that hurt revenues and margins, slower than expected take-up of the company's VLN introduction, and resignation of its CEO. These combined to weaken the company's balance sheet and force the company to lower costs and sharpen its focus.

In November the company announced a definitive agreement to sell its hemp/cannabis franchise subject to approval by the company's debt holders. That approval seems unlikely in our opinion given the terms of the deal, but it appears the company will be focusing its resources on the tobacco business, which has a more favorable return profile than hemp/cannabis.

Clarity on the company's focus is paramount as is cutting costs. In Q3 hemp/cannabis normalized operating loss was over \$5 million and eliminating that business will do much to lower the burn. But more costs will have to be reduced, including contracting the VLN business significant reductions in corporate overhead.

Our estimates reflect the elimination of the hemp/cannabis business by year-end, although it will probably take some months into the new year to dispose of it.

There are catalysts in the coming months that could help the company's business and the shares. The FDA's rule proposing a menthol ban is in final review. A key concern of the FDA is offering smokers an offramp when new rules are proposed. 22nd Century's menthol VLN combustible cigarettes might be excluded from the ban, as an offramp, giving the company a unique position in the market. A \$4 to \$10 million settlement with the company's insurance carrier would also be positive. We also expect a low-nicotine mandate in the future.

December 6, 2023

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Current Price						\$0.24
Price Target						\$3.33
Estimates	F20	22A	F20	023E	F20	24E
Revenues (\$M's)	\$	62.1	\$	78.7 E	\$	27.0
1Q March	\$	9.0	\$	22.0 A	\$	6.8
2Q June	\$	14.5	\$	23.4 A		6.8
3Q September	\$	19.4	\$	17.8 A		6.8
4Q December	\$	19.2	\$	15.5 E	\$	6.8
	F20	22A	F20)23E		24E
EBITDA (\$M's)	\$	(39.2)		(51.9)E		(5.8)
1Q March	\$	(6.5)		(14.6)A		(1.4)
2Q June	\$	(6.9)		(16.1)A		(1.4)
3Q September	\$	(11.0)		(11.7)A		(1.5)
4Q December	\$	(14.8)	\$	(9.6)E	\$	(1.5)
EBITDA (\$Ms)	\$	(39.2)	\$	(51.9)	\$	(5.8)
EV/Sales		0.1x		0.1x		0.2x
Stock Data						
52-Week Range		\$0.20		-		\$18.98
Shares Outstanding (mil.)						30.9
Market Capitalization (mil.)						\$7
Enterprise Value (mil.)						\$6
Debt to Capital						66%
Cash (mil.)						\$2.9
Cash/share						\$0.09
Average Three Months Tradi	ng V	olume (l	K)			900
Insider Ownership	-					1.5%
Institutional Ownership						9.3%
Short interest (mil.)						4.8%
Dividend / Yield					\$0.0	0/0.0%
22nd Century Group,	Inc. ()		<u>.</u>	<u> </u>
35.000 Volume (Thousands)		(70411-00	'	Pric	ce (US	SD) 20
35,000						- 18
30,000						- 16
25.000						- 14
20,000-						- 12
20,000 - 15,000 -	٦.					- 10
15,000 -	~~~	$ \downarrow $				-8
10,000 -		1				-6
5 000		11				-4
5,000 -		0	Z	m		-2
Dec Jan Feb Mar Apr	May	Jun Jul	Aug	Sep Oc	at No	
Volume — 22nd Cent			Auş	a ceb or	a ne	~
				Source: Fa	actSe	t Prices

Valuation: Our \$3.33 price is based on the company's ability to monetize a nicotine mandate assuming modest royalty and market share.

Risks to Target: Our price target assumes the FDA implements a nicotine mandate and the company success in negotiating royalties on its technology.



We believe the company must reduce expenses sharply from current levels, far more than the \$15 million annual reduction announced over the summer. Total opex (excluding special charges) in Q3 was \$2.9 million for the tobacco business, \$3.3 million for the Hemp/Cannabis business and unallocated expenses were \$6.7 million. About \$1.4 million of these quarterly expenses were non-cash depreciation, amortization and amortization of stock comp. This was before the \$15 million annual, \$3.75 million quarterly expense reduction program announced over the summer. But given the current cash balance, the difficulty of raising additional equity capital and the necessity of addressing the debenture due in 2026, we think further cuts, and sharp ones, are required. This will entail difficult choices on which business to fund, and how much, and will probably drive the company's strategy on which business it plans to remain in. Our estimates for 2024 do not include additional expense reduction, but we think this is very likely.

The tobacco business has a unique asset: it has the only FDA-approved combustible cigarette with a modified risk claim. We are not aware of any other combustible product even attempting to make this claim. The other advantage for this business is the FDA's long-standing attempt to reduce the harm from cigarette smoking, and its recognition that it must give smokers an off-ramp as it changes the market with menthol bans and a low-nicotine mandate.

One challenge for the tobacco business is building a brand is time-consuming and expensive. That said, the company's success to date in attracting distribution partners is impressive. Unless additional resources become available via asset sales, license agreements, or warrant exchange, a retrenchment on VLN distribution is likely. Another challenge is that the FDA moves at its own pace, often impacted by public opinion and political factors. The menthol ban is likely the most near-term catalyst, and with a final rule submitted to OMB, action is probably weeks to months away. It would be very positive for the company if its menthol VLN combustible cigarettes were exempted from the ban and given the FDA's recognition of the necessity of giving smokers an offramp, we believe there is a chance of an exemption. The low-nicotine mandate, we believe, is also a priority for the FDA, but its willingness and capacity to move on a menthol ban and a low-nic mandate simultaneously is unknown.



Exhibit 1. Income Statement

(\$ in 000's except per-share data)	2020	2021	2022	0	Q1 23 A	0	Q2 23 A	c	Q3 23 A	6	Q4 23 E		2023 E	2024 E
except per share data)	2020	2021	LULL								4 20 L			
Revenue	\$ 28,111	\$ 30,948	\$ 62,111	\$	21,962	\$	23,427	\$	17,811	\$	15,500	\$	78,700	\$ 27,000
Cost Of Goods Sold	26,673	28,879	60,937		23,139		25,772		19,777		15,500		84,188	25,200
Gross Profit	1,438	2,069	1,174		(1,177)		(2,345)		(1,966)		0		(5,488)	1,800
	5.1%	6.7%	1.9%		-5.4%		-10.0%		-11.0%		0.0%		-7.0%	6.7%
SG&A	14,971	25,881	44,517		14,231		14,540		11,199		9,324		49,294	12,150
R&D	4,128	3,274	6,561		1,517		1,793		1,613		1,613		6,536	1,000
Other	176	78	7,202		898		675		56,704		0		58,277	0
Depreciation & Amort.	1,346	1,248	0		0		0		0		0		0	0
Opex	20,621	30,481	58,280		16,646		17,008		69,516		10,937		114,107	13,150
Operating Income	\$ (19,183)	\$ (28,412)	\$ (57,106)	\$	(17,823)	\$	(19,353)	\$	(71,482)	\$	(10,937)	\$ ((119,595)	\$ (11,350)
Interest and other, net	(490)	(4,183)	(3,129)		(359)		(1,140)		(1,238)		(1,192)		(3,929)	(4,768)
Pretax Income	(19,673)	(32,595)	(60,235)		(18,182)		(20,493)		(72,720)		(12,129)	((123,524)	(16,118)
Income Tax Expense	38	14	(434)		0		0		0		0		0	0
Net loss Deemed dividend	\$ (19,711)	\$ (32,609)	\$ (59,801)	\$	(18,182)	\$	(20,493)	\$	(72,720) (564)	\$	(12,129)	\$ ((123,524)	\$ (16,118)
Net to Common								\$	(73,284)					
Shares (000)	9,254	10,414	12,856		14,386		14,900		19,887		25,978		18,788	39,048
EPS	(\$2.13)	(\$3.13)	(\$4.65)		(\$1.26)		(\$1.38)		(\$3.68)		(\$0.47)		(\$6.57)	(\$0.41)
D&A	1,346	1,536	3,306		1,175		1,442		810		810		4,237	3,240
Stock Comp	1,654	3,983	5,489		1,175		1,486		576		576		3,813	2,304
Other	176	0	9,065		898		336		58,391		0		59,625	0
EBITDA	\$ (16,007)	\$ (22,893)	\$ (39,246)	\$	(14,575)	\$	(16,089)	\$	(11,705)	\$	(9,551)	\$	(51,920)	\$ (5,806)

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



Exhibit 2. Balance Sheet and Cash Flow Statement

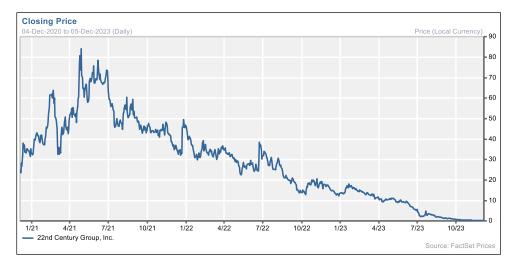
(\$ in 000's)				
	2020	2021	2022	2023 E
Cash & ST Investments Restricted Cash	22,342	48,736	21,213	4,275 0
A/R Inventory	2,159 2,034	585 2,881	5,641 10,008	5,651 11,273
Insurance Recovery	2,004	2,001	5,000	0
Prepaid Exp.	1,806	2,183	2,743	4,818
Total Current Assets	\$ 28,341	\$ 54,385	\$ 44,605	\$ 26,017
PP&E	2,483	5,841	13,093	10,225
Operating Lease	247	1,723	2,675	2,984
Goodwill	0	0	33,160	0
Patent, Trademark, other intangibles Equity Investment	8,211 6,536	7,919 2,345	16,853 682	6,299 682
Restricted Cash	0,000	2,040	002	0
Other Assets	5,876	3,741	3,583	3,705
Total Assets	\$ 51,694	\$ 75,954	\$ 114,651	\$ 49,912
Bank Loans and N/P	539	596	908	1,441
LTD-Current	0	0	0	10,665
Operating Lease A/P	247 1,116	308 2,173	681 4,168	1,097 5,490
Accrued Expenses & Payroll	4.830	5,014	4,100	5,490
Accrued excise taxes and fees	0	0	1,423	2,693
Deferred Income	272	119	831	704
Other	339	217	380	1,263
Total Current Liabilities	\$ 7,343	\$ 8,427	\$ 13,018	\$ 29,146
Notes and loans payable	0	0	0	156
Operating Lease	0	1,432	2,141	6,219
Long-Term Debt	0	0	3,001	0
Other	241	21	516	4,266
Shareholders' Equity	44,110	66,074	95,975	10,124
Total Liabilities And Equity	\$ 51,694	\$ 75,954	\$ 114,651	\$ 49,912
	2020	2021	2022	2023 E
Net Income	(19,711)	(32,609)	(59,801)	(123,570)
Depreciation & Amort.	1,345	1,536	3,591	4,237
Stock Comp Other	1,654 2,722	3,983 4,984	5,489 10,577	3,813 61,322
Working Capital	(1,631)		(11,570)	(1,318)
Operating Cash Flow	\$ (15,621)		\$ (51,714)	
Acquisition of Patents and trademarks	(468)	(326)	(772)	(558)
CapEx	(54)		(3,657)	(4,951)
Other	16,991 \$ 16,469	(26,658)	27,007	21,736
Investing Activities	φ 10,409	\$ (27,729)	\$ 22,578	\$ 16,227
Debt	(354)		(3,822)	13,736
Equity	50	50,826	32,335	34,308
Other Financing Activities	0 \$ (304)	0 \$ 50,875	2,307 \$ 30,820	0 \$ 48,044
Change in Cash	\$ 544	\$ 307	\$ 1,684	\$ 8,755

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 Update – Buy – March 6, 2023 – Price Target \$8.50



Update – Buy – March 10, 2023 – Price Target \$8.50 Price Target Change – Buy – May 10, 2023 – Price Target changed from \$8.50 to \$4.50 Price Target Change – Buy – July 3, 2023 – Price Target changed from \$4.50 to \$1.00 1-15 Stock split July 5, 2023 Price Target Change – Buy – July 25, 2023 – Price Target changed from \$15.00 to \$10.00 Price Target Change – Buy – August 15, 2023 – Price Target changed from \$10.00 to \$7.50 Update – Buy – September 6, 2023 – Price Target \$7.50 Price Target Change – Buy – October 24, 2023 – Price Target \$3.33 Update – Buy – November 7, 2023 – Price Target \$3.33 Update – Buy – December 6, 2023 – Price Target \$3.33

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- 2) **Neutral**: The analyst believes the price of the stock is fairly valued for the next 12-18 months.
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The following chart reflects the range of current research report ratings for all companies, followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

Current as or	14 100 25			
	Company		Investment	
	Coverage		Banking	
				% of
Ratings Distribution	# of Companies	% of Total	# of Companies	Totals
Market Outperform (Buy)	21	61.76%	3	8.80%
Market Perform (Neutral)	13	38.24%	2	5.90%
Market Underperform (Sell)	0	0%	0	0.00%
Total	34	100%	5	14.70%

Current as of	14-Nov-23
Current as or	14-1100-23

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