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22nd Century Group, Inc. (NYSE AM: XXII)

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Buy: Panacea Restructuring Better than Expected

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22nd Century has completed the restructuring of its investment in Panacea, exchanging an illiquid, high-risk investment for a revenue producing asset, a secured note and ownership of a liquid, publicly traded company. This is better than we expected. We reiterate our Buy recommendation and \$7 target.

22nd Century made an initial investment of approximately \$14 million in Panacea, a developer, producer and seller of CBD products, with extraction, distillation, testing and manufacturing operations in Golden, Colorado. The investment comprised three instruments: 1) shares of Series B preferred stock, 2) a \$7M convertible note receivable, and 3) a warrant that if exercised would result in 22nd Century owning 51% of Panacea. In 2020, 22nd Century's new CEO began the process of restructuring this investment.

The completed restructuring of 22nd Century's investment in Panacea was announced yesterday. The company's Series B preferred stock and convertible note have been exchanged for ownership of Needle Rock Farms, a hemp/cannabis farm in Colorado, valued at \$2.2M, a \$4.3M note secured by Panacea's Golden, Colorado building, appraised at \$10.7 million, \$500 K of Panacea equity and 91 million shares of Exactus (EXDI \$0.14, not rated) upon completion of the acquisition of Panacea by Exactus. 22nd Century will own 11.6% of the combined entity.

The restructuring, we believe, has significantly lowered the risk of 22nd Century's investment by exchanging for a note secured by a hard asset, the Panacea building in Golden, while gaining a revenue producing asset, Needle Rock Farms, and retaining potential upside in a more substantial operation, the combined Panacea/Exactus, that is liquid and publicly traded. In all respects, we view this as a major positive accomplishment for the company and better than what it had been hinting at in public filings and presentations.

Financially and operationally, we believe 22nd Century is in the strongest position in its history to benefit from changes we expect in the tobacco, hemp and cannabis markets.

Valuation: Our \$7 price target is the sum of: \$3.08/share for the VLN asset, \$3.18/share for the low-nicotine mandate and \$0.74 for the hemp/cannabis franchise.

Risks to Target: Our price target assumes approval of the company's MRTP application and a nicotine mandate, which could be delayed or may not be approved. Finding a partner for the VLN business could take longer than estimated and/or on different terms than assumed. The nicotine mandate may take longer to decide, and the transition period could be longer than estimated. There is no guarantee the industry will use 22nd Century's solution and it 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 and market share.

Current Price	\$4.21		
Price Target	\$7.00		
Estimates	F2020A	F2021E	F2022E
Revenues (\$000s)	\$ 28,111	\$ 29,806 E	\$ 32,000
1Q March	\$ 7,058	\$ 6,806 A	\$ 9,500
2Q June	\$ 6,435	\$ 7,000 E	\$ 7,500
3Q September	\$ 7,310	\$ 7,000 E	\$ 7,500
4Q December	\$ 7,308	\$ 9,000 E	\$ 7,500
	F2020A	F2021E	F2022E
EPS (diluted)	\$ (0.14)	\$ (0.11)E	\$ (0.10)
1Q March	\$ (0.03)	\$ (0.03)A	\$ (0.02)
2Q June	\$ (0.04)	\$ (0.03)E	\$ (0.03)
3Q September	\$ (0.03)	\$ (0.03)E	\$ (0.03)
4Q December	\$ (0.05)	\$ (0.02)E	\$ (0.03)
EBITDA (\$Ms)	\$ (16.0)	\$ (15.5)	\$ (15.7)
EV/EBITDA (x)	-38.5x	-39.7x	-39.2x
Stock Data			
52-Week Range	\$0.55	-	\$6.07
Shares Outstanding (mil.)			162.6
Market Capitalization (mil.)			\$684
Enterprise Value (mil.)			\$616
Debt to Capital			1%
Book Value/Share			\$0.34
Price/Book			12.2x
Average Three Months Trading Volume (K)			1,279
Insider Ownership			2.5%
Institutional Ownership			29.9%
Short interest (mil.)			6.3%
Dividend / Yield			\$0.00/0.0%



Approval of the company's MRTP by the FDA is still the mostly likely near-term catalyst, in our view. Since the company's MRTP fits into the FDA's strategy of reducing tobacco consumption, we continue to believe approval of the MRTP will occur. We think it is likely, based on the FDA's long-standing goal of reducing cigarette consumption, that the FDA will reintroduce a low-nicotine mandate, although the timing is uncertain and could follow nomination and confirmation of an FDA commissioner. We believe it is reasonable to assume a new mandate would broadly follow the 2018 ANPRM since none of the studies supporting the efficacy of a low-nicotine mandate have been invalidated and, in our opinion, technical achievability of a mandate has been demonstrated by 22nd Century.

The company expects licensing and revenue to begin in the second half of this year from the IP it shares with Aurora Cannabis (NASDAQ: ACB, \$8.88, Not Rated). Recently, Aurora announced the formation of a Science & Innovation Business Unit to commercialize technology that enables cannabinoid biosynthesis in plants and microorganisms. Aurora and 22nd Century Group share the global intellectual property (IP) rights to certain patents and patent applications relating to genes in the hemp/cannabis plant required for the production of cannabinoids in the cannabis plant. The two are working closely together to enforce their IP against infringing parties and explore commercial development opportunities.

A new Canadian subsidiary has been created to allow the company to pursue opportunities in recreational and medical cannabis. 22nd Century has exclusive rights in the U.S. and co-exclusive rights, with Aurora, everywhere else in the world (except Canada) to patents and patent applications of genes required to produce cannabinoids in the cannabis plant. This subsidiary allows greater flexibility to pursue R&D projects given the changing legal status of hemp and cannabis globally.

With the restructuring of the Panacea investment, 22nd Century now has ownership of a revenue producing farm in Colorado it can use for testing and production of the propriety hemp plants it is creating. This is part of the company's strategy of creating a vertically integrated organization that can create a plant profile, breed these proprietary plants, and extract and purify combinations of CBD. We believe this is a unique set of skills in the market and possibly not entirely appreciated by the investors.

The company also has ample financial resources to execute its plant. It recently raised \$40 million in gross proceeds, \$38.2 million net, from the sale of 10 million shares to one investor, bringing pro forma cash to almost \$70 million, or over 5 years of cash at recent burn rates. However, we believe the burn rate can decline with successful monetization of the company's tobacco IP and initiatives in hemp and cannabis. The stronger balance sheet will, in our view, provide greater negotiating leverage to the company in the case where a low-nicotine mandate is implemented, provide greater resources to roll out a VLN cigarette if and when the MRTP is approved, build out the hemp/cannabis franchise and acquire additional IP in the existing or new franchises.

Our price target of \$7 comprises three components: We attribute about \$3.08/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 its investment in Panacea, 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 investment could be catalysts to more rapid development of the market and 22nd Century's monetization efforts.

Price Target. Our \$7 price target is the sum of the estimated values of the VLN, non-addictive nicotine and hemp franchises. We attribute about \$3.08/share for the VLN asset. The non-addictive nicotine mandate is valued at \$3.18 per share. The remainder of the price target comprises the investment in the hemp business and the relationship with KeyGene.

Risk Analysis

The tobacco industry is highly regulated, and our price target depends on approval of the company's MRTP application and a nicotine mandate, which could be delayed or may not be approved. Our price target assumes the company will find a partner for the VLN business and this could take longer than estimated and/or the partner could demand different terms than assumed. 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

(\$ in 000s, except per-share data)

	2018	2019	2020	Q1 21 A	Q2 21 E	Q3 21 E	Q4 21 E	2021 E	2022 E
Revenue	\$ 26,426	\$ 25,833	\$ 28,111	\$ 6,806	\$ 7,000	\$ 7,000	\$ 9,000	\$ 29,806	\$ 32,000
Cost Of Goods Sold	25,527	25,818	26,673	6,159	6,159	6,159	6,159	24,636	26,000
Gross Profit	899	14	1,438	647	841	841	2,841	5,170	6,000
			5.1%	9.5%					
R&D	14,990	8,057	4,128	701	701	701	701	2,804	2,944
G&A	7,658	12,956	14,971	4,829	4,829	4,829	5,418	19,905	20,900
Impairment Charge	0	1,142	176	0	0	0	0	0	0
Sales & marketing	927	0	0	0	0	0	0	0	0
Depreciation & Amort.	1,342	1,425	1,346	288	288	288	288	1,152	1,152
Opex	24,918	23,581	20,621	5,818	5,818	5,818	6,407	23,861	24,996
Operating Income	\$ (24,019)	\$ (23,566)	\$ (19,183)	\$ (5,171)	\$ (4,977)	\$ (4,977)	\$ (3,566)	\$ (18,691)	\$ (18,996)
Other	14,945	(4,002)	(428)	36	36	36	36	144	144
Impairment Charge	49	0	(1,741)	0	0	0	0	0	0
Interest Income	1,069	1,066	1,751	112	309	652	617	1,691	2,218
Interest Expense	(11)	(56)	(72)	(7)	(7)	(7)	(7)	(28)	(28)
Pretax Income	(7,967)	(26,559)	(19,673)	(5,030)	(4,639)	(4,296)	(2,920)	(16,884)	(16,662)
Income Tax Expense	0	0	38	0	0	0	0	0	0
Net to Common	\$ (7,967)	\$ (26,559)	\$ (19,711)	\$ (5,030)	\$ (4,639)	\$ (4,296)	\$ (2,920)	\$ (16,884)	\$ (16,662)
Shares (000)	124,299	125,883	138,813	144,258	157,421	162,694	163,194	156,892	164,007
EPS	(\$0.06)	(\$0.21)	(\$0.14)	(\$0.03)	(\$0.03)	(\$0.03)	(\$0.02)	(\$0.11)	(\$0.10)
D&A	1,200	1,425	1,346	288	288	288	288	1,152	1,152
Stock Comp	3,187	3,540	1,654	507	507	507	507	2,028	2,129
Other	0	1,142	176	0	0	0	0	0	0
EBITDA	\$ (19,632)	\$ (17,459)	\$ (16,007)	\$ (4,376)	\$ (4,182)	\$ (4,182)	\$ (2,771)	\$ (15,511)	\$ (15,715)

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

Exhibit 2. Balance Sheet and Cash Flow Statement

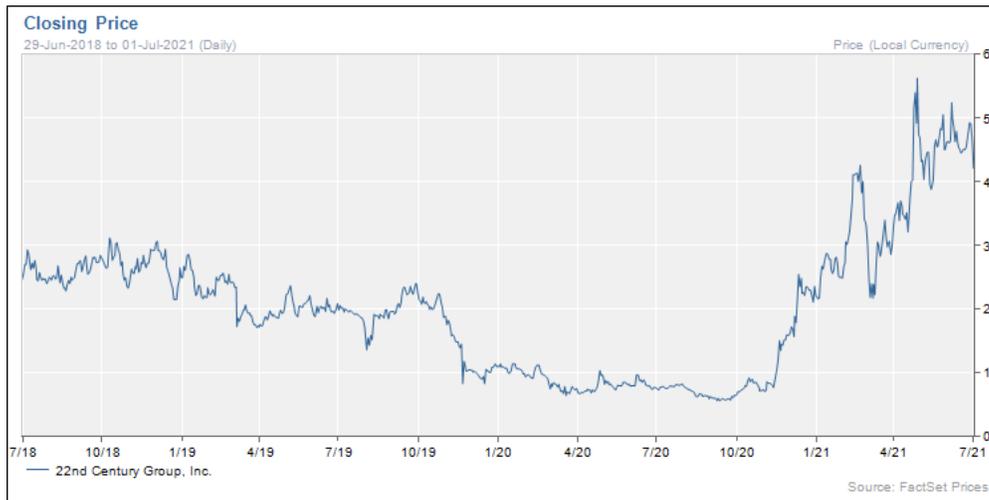
(\$ in 000s)

	2018	2019	2020	2021 E	2022 E
Cash	605	485	1,029	1,272	1,272
Short-Term Investments	55,749	38,477	21,313	58,252	44,671
A/R	871	867	2,159	2,023	2,023
Inventory	3,044	2,266	2,034	2,137	2,137
Prepaid Exp.	928	648	1,806	1,280	1,280
Total Current Assets	\$ 61,198	\$ 42,743	\$ 28,341	\$ 64,964	\$ 51,383
PP&E	3,261	3,120	2,483	2,148	1,696
Operating Lease	0	602	247	182	182
Patent, Trademark, other intangibles	9,752	8,494	8,211	8,035	7,935
Equity Investment	3,092	8,403	6,536	6,643	6,643
Convertible Note Receivable	0	5,589	5,876	5,876	5,876
Total Assets	\$ 77,302	\$ 68,951	\$ 51,694	\$ 87,848	\$ 73,715
Bank Loans and N/P	689	581	539	295	295
Operating Lease	0	220	247	182	182
A/P	2,575	1,998	1,116	1,572	1,572
Accrued Expenses	1,826	2,619	4,830	4,681	4,681
Accrued Severance	0	359	339	274	274
Deferred Income	83	5	272	0	0
Total Current Liabilities	\$ 5,174	\$ 5,780	\$ 7,343	\$ 7,004	\$ 7,004
Long-Term Debt	848	292	0	0	0
Operating Lease	0	382	0	0	0
Accrued Severance	0	446	241	187	187
Shareholders' Equity	71,280	62,051	44,110	80,657	66,524
Total Liabilities And Equity	\$ 77,302	\$ 68,951	\$ 51,694	\$ 87,848	\$ 73,715
	2018	2019	2020	2021 E	2022 E
Net Income	(7,967)	(26,559)	(19,711)	(16,884)	(16,662)
Depreciation & Amort.	1,200	1,425	1,345	1,152	1,152
Stock Comp	3,187	3,540	1,654	2,028	2,129
Other	(14,618)	7,249	2,722	(10)	0
Working Capital	354	(242)	(1,631)	334	0
Operating Cash Flow	\$ (17,844)	\$ (14,587)	\$ (15,621)	\$ (13,380)	\$ (13,381)
Acquisition of Patents and trademarks	(657)	(515)	(468)	(395)	(500)
CapEx	(449)	(527)	(54)	(175)	(100)
Other	16,251	5,595	16,991	(8,415)	0
Investing Activities	\$ 15,145	\$ 4,552	\$ 16,469	\$ (8,985)	\$ (600)
Debt	(800)	(700)	(354)	(246)	0
Equity	445	10,616	50	51,435	400
Other	0	0	0	0	0
Financing Activities	\$ (355)	\$ 9,916	\$ (304)	\$ 51,189	\$ 400
Change in Cash	(\$3,055)	(\$120)	\$ 544	\$ 28,824	(\$13,581)

 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

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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.
- 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.

As of: 30-Jun-21

Ratings Distribution	Company Coverage		Investment Banking	
	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	24	71%	4	17%
Market Perform (Neutral)	10	29%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	34	100%	4	12%

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