

22nd Century Group, Inc. (XXII - \$1.13 - Buy)

COMPANY NOTE

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Sales and trading 7 a.m. to 7 p.m. ET, (646) 465-9090

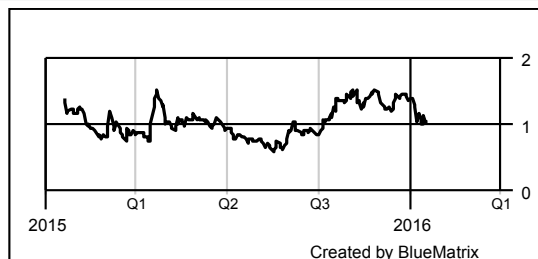
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Stock Data	01/20/16
Price	\$1.13
52 Week Range	(\$0.56 - \$1.75)
Price Target	\$9.00
Market Cap (mil)	\$80.08
Shares out (mil)	70.87
3-Mo Avg Vol	457,169
Cash per share	\$0.10
Total Debt (mil)	\$1.12

EPS (\$)						
Yr Dec	2014A		2015E		2016E	
	Actual	Curr	Prev	Curr	Prev	
Mar	(0.09)	(0.06)A	–	(0.03)	–	
Jun	(0.03)	(0.02)A	–	(0.03)	–	
Sep	(0.05)	(0.04)A	–	(0.02)	–	
Dec	(0.09)	(0.02)	–	(0.02)	–	
YEAR	(0.26)	(0.14)	–	(0.09)	–	
P/E	(4.3)x	(8.1)x	–	(12.6)x	–	

Revenues (\$ millions)						
Yr Dec	2014A		2015E		2016E	
	Actual	Curr	Prev	Curr	Prev	
Mar	0.4	0.6A	–	2.4	–	
Jun	0.0	2.3A	–	3.0	–	
Sep	0.1	2.7A	–	3.8	–	
Dec	0.0	2.7	–	4.5	–	
YEAR	0.5	8.3	–	13.6	–	

One year price history XXII



FDA Meets with 22nd Century on Reduced Exposure Application

22nd Century met with 22 FDA staff members and an additional 20 FDA staff members participated telephonically regarding the company's modified risk application seeking a reduced exposure order for its Brand A, very-low nicotine (VLN) cigarettes. We don't want to make too much of this but it seems like the FDA's response was unusually rapid and the amount of resources devoted to this meeting substantial. We believe it will still take about a year, or more, for the FDA's ruling on this application.

The company submitted its application to the FDA on December 31, 2015, including a study published October 1, 2015 in the New England Journal of Medicine, "Randomized Trial of Reduced-Nicotine Standards for Cigarettes" that concluded, "In this 6-week study, reduced-nicotine cigarettes versus standard-nicotine cigarettes reduced nicotine exposure and dependence and the number of cigarettes smoked." We believe this was part of a larger body of studies and support for the company's application. It is likely the FDA will seek clarity on the products efficacy in reducing smoking as well as evidence it does not entice new smokers and underage smokers.

In our experience, not much moves quickly through the Federal Government, so we expect even a favorably disposed FDA will use all the time it is allowed to evaluate the application. That said, there may be benefits outside of the process that accrue to 22nd Century. We expect the company to use its application, and the initial response, to engage potential partners on relationships for the reduced exposure product and/or other products in the company's portfolio.

Another major effort of management is attracting a research partner to fund Phase III clinical trials for 22nd Century's X-22 smoking cessation product. The company is casting a wide net for partners and using all aspect of its technology to interest potential partners. For instance, funding of X-22 could give a partner preferred access to the modified risk product. This would be valuable to multiple players in the space.

Contract manufacturing will be an important source of revenue and cash flow for the company over the coming quarters and we believe 22nd Century continues to make progress. There are a variety of bids, large and small, in process and this could be a catalyst for the shares in the near term.

In the near-term the company is also generating sales of REDSUN in the US and working to distribute MAGIC in Europe. Recently, 22nd Century paused its roll-out of MAGIC in the U.K., Holland, France, and Italy to alter the taste of the product, making the cigarettes less harsh tasting, less like the American brand and more in line with

European tastes.

We remain positive on the shares given near-term revenue generation from multiple sources but clearly the story has taken longer to develop than we expected. We believe there is a good chance the company will exceed our revenue estimates of \$8.3 million in 2015 and \$13.6 million this year. Our \$9 price target is driven by a sum-of-the-parts methodology comprised of the discounted present value of the projected BAT license revenue, the discounted value of commercial product sales, RED SUN and MAGIC, and a value for the company's modified risk and X-22 initiatives.

Investment Summary:

We expect meaningful revenues to begin from product sales of the company's proprietary RED SUN and MAGIC brands. Over the longer-term 22nd Century will pursue the \$1 billion US smoking-cessation market with its proprietary X-22 cigarette, and will file with the FDA applications for modified risk cigarettes.

The value of this technology was validated by BAT in October of 2013 when it signed a worldwide research license agreement with 22nd Century. The company received a \$7 million payment in Q4 of 2013. BAT has the option to turn this research license into a royalty-bearing commercial license at any time.

Valuation:

We approached valuation from a sum-of-the-parts perspective to arrive at our \$9.00 price target. We discounted the projected BAT license revenue at 10% and in the low case assumed the license terminated in 2028, while in the high case we assumed the license was extended by an additional 15 years.

For the commercial products we assume RED SUN and MAGIC can achieve \$150 to \$200 million in sales by 2023. Our EV/Sales valuation ranges are comparable to the 3.6x to 5.2x EV/Sales multiples awarded to Altira, British American Tobacco, Lorillard, Reynolds American and Philip Morris International.

Our modified risk/X-22 valuation of \$2 to \$4 per share is derived in a number of ways. E-cigarette makers, Victory Electronic Cigarettes and Vapor Corp., proxies for modified risk valuations, have enterprise values of \$499 million and \$141 million respectively. This equates to \$2.42 per share using the lower EV as a bogey. X-22 valuation using a modest market share of the smoking cessation market and EV/Sales of 2x to 3x also yields per share valuation to 22nd Century of over \$2 per share. We have heavily discounted these assumptions due to the longer-term nature of development of these lines of business as well as the additional capital required for them.

Risks to achievement of target price:

Risks to achieving our price target: We have assumed the commercial product growth trajectory will be similar to American Spirit, but changes in the industry can hinder 22nd Century from achieving our estimates. We have also assumed the BAT license will change from a research license to a commercial royalty-bearing license, but that too is not assured. The industry is subject to significant regulatory constraints, litigation, societal views on smoking and changing legislation. Any one of these could have a deleterious impact on our assumptions.

Company description:

22nd Century owns or exclusively controls 185 issued patents, 54 pending patent applications. The company's proprietary technology enables the control of nicotine levels in tobacco plants by controlling the genes responsible for nicotine production in tobacco plants.

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22nd Century Group, Inc
Income Statement \$ in 000s

	2012	2013	2014	Q1 15	Q2 15	Q3 15	Q4 15 E	2015 E	2016 E
Revenue	\$ 19	\$ 7,278	\$ 529	\$ 616	\$ 2,307	\$ 2,668	\$ 2,718	\$ 8,309	\$ 13,625
Cost Of Goods Sold	68	462	498	633	2,600	2,949	2,346	8,528	9,813
Gross Profit	(49)	6,817	31	(16)	(293)	(281)	372	(219)	3,813
R&D	729	744	1,249	183	308	530	400	1,421	2,000
G&A	2,205	4,107	8,793	3,644	1,291	1,293	1,293	7,520	7,380
Pre-Mfg. Facility Costs	0	0	1,177	0	0	0	0	0	0
Sales & marketing	62	9	86	115	291	471	250	1,127	1,400
Depreciation & Amort.	198	144	463	161	164	173	150	648	700
Opex	3,195	5,004	11,768	4,103	2,053	2,466	2,093	10,715	11,480
Operating Income	\$ (3,244)	\$ 1,812	\$ (11,737)	\$ (4,119)	\$ (2,347)	\$ (2,747)	\$ (1,721)	\$ (10,934)	\$ (7,668)
Interest Expense	(1,495)	(749)	(7)	(6)	(14)	(9)	(2)	(30)	(8)
Other	0	122	(30)	(51)	959	(33)	0	875	0
Warrant Charge	(1,998)	(27,339)	(3,821)	59	113	28	0	200	0
Pretax Income	(6,737)	(26,153)	(15,595)	(4,117)	(1,289)	(2,761)	(1,723)	(9,890)	(7,676)
Income Tax Expense	0	0	0	0	0	0	0	0	0
Net before Minority Interest	(6,737)	(26,153)	(15,595)	(4,117)	(1,289)	(2,761)	(1,723)	(9,890)	(7,676)
Minority Interest	1	0	0	0	0	0	0	0	0
Net to Common	\$ (6,735)	\$ (26,153)	\$ (15,595)	\$ (4,117)	\$ (1,289)	\$ (2,761)	\$ (1,723)	\$ (9,890)	\$ (7,676)
Shares	30,420	43,635	59,993	64,188	66,617	70,799	71,299	68,226	82,299
EPS	(\$0.22)	(\$0.60)	(\$0.26)	(\$0.06)	(\$0.02)	(\$0.04)	(\$0.02)	(\$0.14)	(\$0.09)

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22nd Century Group, Inc
Balance Sheet and Cash Flow Statement \$ in 000s

	2012	2013	2014	Q1 15	Q2 15	Q3 15	Q4 15 E	2015 E	2016 E
Cash	0	5,831	6,403	3,844	8,197	6,742	5,730	5,730	811
Due from related party and officers	41	50	46	46	46	46	46	46	46
A/R	0	0	0	209	449	225	411	411	2,055
Settlement proceeds receivable	0	0	0	0	600	0	0	0	0
Inventory	1,231	1,406	2,065	2,563	2,382	2,375	2,927	2,927	3,587
Prepaid Consulting Fees	0	0	1,979	0	0	0	0	0	0
Prepaid Exp.	10	458	214	458	456	483	595	595	729
Total Current Assets	\$ 1,281	\$ 7,744	\$ 10,707	\$ 7,120	\$ 12,130	\$ 9,870	\$ 9,709	\$ 9,709	\$ 7,229
Patent and Trademark costs	1,353	1,545	7,078	7,166	7,206	7,306	7,244	7,244	6,999
PP&E	6	2,998	2,851	2,794	2,716	2,647	2,679	2,679	2,762
Equity Investment	0	0	1,318	1,267	1,227	1,193	1,193	1,193	1,193
Total Assets	\$ 2,645	\$ 12,287	\$ 21,954	\$ 18,347	\$ 23,278	\$ 21,016	\$ 20,826	\$ 20,826	\$ 18,184
Bank Loans and N/P	2,686	175	495	495	507	503	503	503	503
A/P	1,411	55	884	1,414	985	1,239	1,527	1,527	1,872
Accrued Expenses	503	576	1,294	537	1,435	1,345	1,658	1,658	2,032
Deferred Revenue	0	179	0	0	0	0	0	0	0
Total Current Liabilities	\$ 4,603	\$ 984	\$ 2,673	\$ 2,446	\$ 2,927	\$ 3,087	\$ 3,688	\$ 3,688	\$ 4,407
Long-Term Debt	0	0	605	605	605	616	616	616	616
Accrued Severance	0	0	412	364	307	254	185	185	0
Warrant Liability & Other	4,173	3,780	3,043	2,984	2,871	2,843	2,843	2,843	2,843
Shareholder's Equity	(6,131)	7,523	15,220	11,948	16,568	14,217	13,494	13,494	10,318
Total Liabilities And Equity	\$ 2,645	\$ 12,287	\$ 21,954	\$ 18,347	\$ 23,278	\$ 21,016	\$ 20,826	\$ 20,826	\$ 18,184
Net Income	(6,737)	(26,153)	(15,595)	(4,117)	(1,289)	(2,762)	(1,723)	(9,890)	(7,676)
Depreciation & Amort.	198	144	463	185	139	173	154	652	662
Stock Comp	808	980	2,293	354	332	315	500	1,501	2,500
Other	3,866	29,386	6,740	2,139	15	134	(69)	2,219	(185)
Working Capital	100	(501)	(483)	(1,082)	(281)	881	(249)	(731)	(1,720)
Operating Cash Flow	\$ (1,764)	\$ 3,856	\$ (6,583)	\$ (2,521)	\$ (1,083)	\$ (1,259)	\$ (1,387)	\$ (6,250)	\$ (6,418)
Acquisition of Patents and trademarks	(163)	(290)	(727)	0	(139)	(178)	0	(317)	0
Capx	0	(3,452)	(212)	(4)	(1)	(18)	(125)	(148)	(500)
Other	0	0	(1,769)	0	0	0	0	0	0
Investing Activities	\$ (163)	\$ (3,743)	\$ (2,708)	\$ (4)	\$ (140)	\$ (196)	\$ (125)	\$ (465)	\$ (500)
Debt	225	(1,810)	(4)	0	0	0	0	0	0
Equity	1,468	7,536	9,859	(35)	5,576	0	500	6,042	2,000
Other	(17)	(9)	7	0	0	0	0	0	0
Financing Activities	\$ 1,675	\$ 5,717	\$ 9,863	\$ (35)	\$ 5,576	\$ -	\$ 500	\$ 6,042	\$ 2,000
Change in Cash	(\$252)	\$ 5,830	\$ 572	(\$2,559)	\$ 4,353	(\$1,455)	(\$1,012)	(\$673)	(\$4,918)

Important Research Disclosures



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Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [BUY]	54	75.00	21	38.89
HOLD [NEUTRAL]	15	20.83	2	13.33
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NOT RATED [NR]	1	1.39	0	0.00

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