

22nd Century Group, Inc. (XXII - \$4.60 - 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		03/17/14
Price		\$4.60
52 Week Range		(\$0.46 - \$6.36)
Price Target		\$9.00
Market Cap (mil)		\$267.95
Shares out (mil)		58.25
3-Mo Avg Vol		413,558
Cash per share		\$0.10
Total Debt (mil)		\$0.17

Company Update. Attractive Entry Point.

XXII is off 26% from recent highs (although still up 150% from our \$1.80 initiation) and we believe this represents an attractive entry point. We expect multiple catalysts over the coming months to drive the shares higher and we reiterate our \$9 price target. The stock remains our top pick for the year.

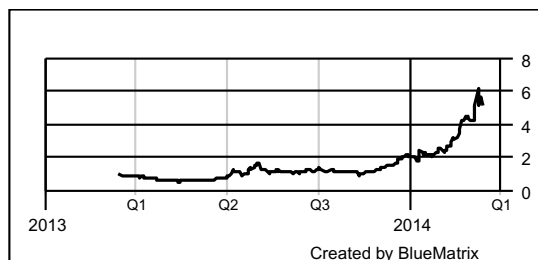
EPS (\$)					
Yr Dec	2013A	2014E		2015E	
	Actual	Curr	Prev	Curr	Prev
Mar	(0.07)	(0.03)	–	(0.02)	–
Jun	(0.01)	(0.04)	–	(0.02)	–
Sep	(0.32)	0.00	–	0.01	–
Dec	(0.15)	0.00	–	0.01	–
YEAR	(0.60)	(0.07)	–	(0.01)	–
P/E	(7.7)x	(65.7)x	–	(460.0)x	–

Earlier this month trading moved to the NYSE which should improve liquidity for the shares since they become available for more institutional accounts, margin accounts and for retail brokers to recommend to their clients without burdensome approval letters. Adding options chains also adds to the shares' liquidity.

Revenues (\$ millions)					
Yr Dec	2013A	2014E		2015E	
	Actual	Curr	Prev	Curr	Prev
Mar	0.0	0.5	–	2.5	–
Jun	0.0	0.3	–	2.8	–
Sep	0.1	2.8	–	5.0	–
Dec	7.2	3.5	–	5.0	–
YEAR	7.3	7.0	–	15.3	–

From a fundamental standpoint the company announced the sale of excess machinery in an auction earlier this month, generating net proceeds of \$640 thousand. We estimate this will result in a pretax gain of \$182,000. In addition, 22nd Century's subsidiary, Goodrich Tobacco, received a federal permit (a TTB permit) to product tobacco products from the Alcohol and Tobacco Tax and Trade Bureau of the U.S. Department of the Treasury. This was part of the dual track process 22nd Century has underway to achieve volume production. The other track was acquiring an MSA (Master settlement agreement) from the National Association of Attorney's General (NAAG) via the purchase of NASCO. Upon consummation of the NASCO deal 22nd Century will forfeit its TTB permit.

One year price history XXII



We expect MSA approval in April or May. This will result in a series of catalysts including the NASCO acquisition, the volume production of RedSun and the initiation of distribution agreements with tobacconist(s) and distributor(s).

The FDA also intends to award a \$6.7 million sole-source contract for cigarette reference products to create a high-quality database of different cigarette characteristics including, tar, nicotine, carbon dioxide, and HPHCs (harmful and potentially harmful constituents). The reference cigarettes could also be used as a benchmark for companies seeking to apply for modified-risk products with the FDA. 22nd Century has partnered for this contract, which is scheduled to be awarded this year. We have not included this in our estimates although we think the company is a serious contender for the award.

Later this year the company should hit at least one milestone in its agreement with British American Tobacco (BAT). The research agreement with BAT should result in plants with different nicotine levels and for different applications. We think there are other agreements the company is pursuing, including a relationship for the Chinese market, although we think this could take some time.

More technical catalysts are upcoming. The increase in the company's market cap could make it eligible to be included in various specialty indices as well as broader market indices. This should provide additional liquidity for the shares and upward buying pressure. We think the company will use the ringing of the opening bell on June 17th to present to investors and market publications.

Our \$9 price target uses a sum of the parts method, valuing the BAT license stream at \$1.67 per share, the commercial product revenue at \$4.34 per share and the combined modified risk/X-22 at \$3 per share. Risks to achieving this target include increased regulation, inability to obtain MSA membership, delays in finalizing distribution agreements and commercial license revenue lower than expectations.

Investment Summary:

We expect meaningful revenues to begin from a number of sources including a license agreement with British American Tobacco (BAT) and commercial product sales from 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. We believe there are multiple near-term catalysts for the stock, including an up-listing, inclusion in the modified settlement agreement (MSA), beginning of production in North Carolina and a potential FDA award for research cigarettes. The stock has reacted favorably recently due to growing awareness of these catalyst as well as the recent warrant exchange which cleans up the capital structure and resulted in a cash balance of \$6 million.

22nd Century owns or exclusively controls 113 issued patents and 37 patent applications which gives it exclusive worldwide rights to all uses for certain genes that control nicotine content in tobacco plants. 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.

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 and we expect \$3 million of license revenue from BAT in 2014 and an additional \$4 million in 2015. BAT has the option to turn this research license into a royalty-bearing commercial license at any time.

22nd Century announced the purchase of NASCO, a member of the Master Settlement Agreement (MSA) in September of last year and the deal's closing will take place following the consent of the National Association of Attorneys General (NAAG). NAAG approval sets off a chain of events, including distribution agreements that will result in commercial sales this year.

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 can achieve \$142 million in sales by 2023 and MAGIC \$55 million by the same year. 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: NAAG approval of the NASCO purchase is critical and assumed to occur this quarter. Lacking that approval we believe it will be difficult for the company to achieve our domestic RED SUN estimates. We have also 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 113 issued patents and 37 patent applications which gives it exclusive worldwide rights to all uses for certain genes that control nicotine content in tobacco plants. 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. This can be accomplished with or without genetic engineering.

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

	2012	2013	Q1 14 E	Q2 14 E	Q3 14 E	Q4 14 E	2014 E	Q1 15 E	Q2 15 E	Q3 15 E	Q4 15 E	2015 E
Revenue	19	7,278	450	250	2,750	3,500	6,950	2,500	2,750	5,000	5,000	15,250
Cost Of Goods Sold	68	462	225	125	625	1,000	1,975	1,250	1,375	1,500	1,500	5,625
Gross Profit	(49)	6,817	225	125	2,125	2,500	4,975	1,250	1,375	3,500	3,500	9,625
R&D	729	744	250	400	400	400	1,450	450	450	450	450	1,800
G&A	2,205	4,107	1,500	1,500	1,500	1,500	6,000	1,650	1,650	1,650	1,650	6,600
Sales & marketing	62	9	150	250	250	250	900	350	350	350	350	1,400
Depreciation & Amort.	198	144	125	125	125	125	500	150	150	150	150	600
Opex	3,195	5,004	2,025	2,275	2,275	2,275	8,850	2,600	2,600	2,600	2,600	10,400
Operating Income	(3,244)	1,812	(1,800)	(2,150)	(150)	225	(3,875)	(1,350)	(1,225)	900	900	(775)
Interest Expense	(1,495)	(749)	(2)	(2)	(2)	(2)	(8)	(2)	(2)	(2)	(2)	(8)
Other	0	122	0	0	0	0	0	0	0	0	0	0
Warrant Charge	(1,998)	(27,339)	0	0	0	0	0	0	0	0	0	0
Pretax Income	(6,737)	(26,153)	(1,802)	(2,152)	(152)	223	(3,883)	(1,352)	(1,227)	898	898	(783)
Income Tax Expense	0	0	0	0	0	0	0	0	0	0	0	0
Net before Minority Interest	(6,737)	(26,153)	(1,802)	(2,152)	(152)	223	(3,883)	(1,352)	(1,227)	898	898	(783)
Minority Interest	1	0	0	0	0	0	0	0	0	0	0	0
Net to Common	(6,735)	(26,153)	(1,802)	(2,152)	(152)	223	(3,883)	(1,352)	(1,227)	898	898	(783)
Shares	30,420	43,635	57,000	57,500	58,000	58,500	57,750	59,000	59,500	60,000	60,500	59,750
EPS	(\$0.22)	(\$0.60)	(\$0.03)	(\$0.04)	(\$0.00)	\$0.00	(\$0.07)	(\$0.02)	(\$0.02)	\$0.01	\$0.01	(\$0.01)

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

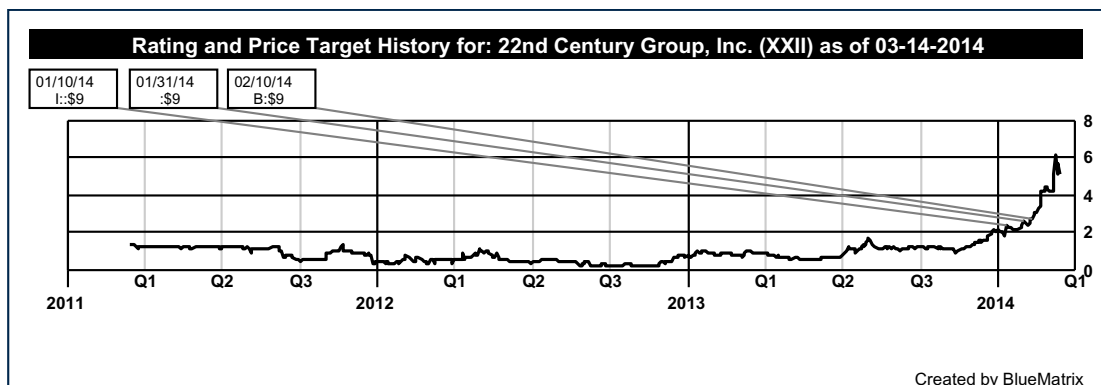
	2012	2013	2014 E	2015 E	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E
Revenue	19	7,278	6,950	15,250	20,361	31,542	47,813	71,220	105,330	137,318
Cost Of Goods Sold	68	462	1,975	5,625	9,181	14,271	21,407	32,110	48,165	63,159
Gross Profit	(49)	6,817	4,975	9,625	11,181	17,271	26,407	39,110	57,165	74,159
R&D	729	744	1,450	1,800	2,000	2,300	2,645	3,042	3,498	4,023
G&A	2,205	4,107	6,000	6,600	7,260	7,986	8,785	9,663	10,629	11,692
Sales & marketing	62	9	900	1,400	2,000	3,000	4,500	5,625	6,469	7,116
Depreciation & Amort.	198	144	500	600	700	770	847	932	1,025	1,127
Opex	3,195	5,004	8,850	10,400	11,960	14,056	16,777	19,262	21,621	23,958
Operating Income	(3,244)	1,812	(3,875)	(775)	(779)	3,215	9,630	19,848	35,544	50,201
Interest Expense	(1,495)	(749)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Other	0	122	0	0	0	0	0	0	0	0
Warrant Charge	(1,998)	(27,339)	0	0	0	0	0	0	0	0
Pretax Income	(6,737)	(26,153)	(3,883)	(783)	(787)	3,207	9,622	19,840	35,536	50,193
Income Tax Expense	0	0	0	0	(276)	1,122	3,368	6,944	12,438	17,568
Net before Minority Interest	(6,737)	(26,153)	(3,883)	(783)	(512)	2,085	6,254	12,896	23,098	32,626
Minority Interest	1	0	0	0	0	0	0	0	0	0
Net to Common	(6,735)	(26,153)	(3,883)	(783)	(512)	2,085	6,254	12,896	23,098	32,626
Shares	30,420	43,635	57,750	59,750	61,750	63,750	65,750	67,750	69,750	71,750
EPS	(\$0.22)	(\$0.60)	(\$0.07)	(\$0.01)	(\$0.01)	\$0.03	\$0.10	\$0.19	\$0.33	\$0.45

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

	2012	2013	Q1 14 E	Q2 14 E	Q3 14 E	Q4 14 E	2014 E	2015 E	2016 E
Cash	0	5,831	4,364	3,591	2,345	2,043	2,043	3,641	3,241
Due from related party and officers	41	50	50	50	50	0	0	0	0
A/R	0	0	370	205	1,027	1,644	1,644	2,466	4,418
Inventory	1,231	1,406	1,185	1,103	1,513	1,821	1,821	2,232	3,207
Prepaid Exp.	10	458	458	254	1,271	2,034	2,034	3,051	5,467
Total Current Assets	1,281	7,744	6,426	5,203	6,206	7,543	7,543	11,390	16,333
Patent and Trademark costs	1,353	1,545	1,484	1,422	1,361	1,300	1,300	1,055	810
PP&E	6	2,998	3,172	3,142	3,107	3,068	3,068	2,867	2,595
Deferred Costs	4	0	0	0	0	0	0	0	0
Total Assets	\$ 2,645	\$ 12,287	\$ 11,081	\$ 9,768	\$ 10,675	\$ 11,911	\$ 11,911	\$ 15,312	\$ 19,737
Bank Loans and N/P	2,686	175	175	175	175	175	175	175	175
A/P	1,411	55	46	43	59	71	71	87	125
Accrued Interest	4	0	0	0	0	0	0	0	0
Accrued Expenses	503	576	485	451	620	746	746	914	1,313
Deferred Revenue	0	179	0	0	0	0	0	0	0
Total Current Liabilities	4,603	984	706	669	853	991	991	1,175	1,613
Warrant Liability	4,173	3,780	3,780	3,780	3,780	3,780	3,780	3,780	3,780
Shareholder's Equity	(6,131)	7,523	6,596	5,319	6,042	7,140	7,140	10,357	14,345
Total Liabilities And Equity	\$ 2,645	\$ 12,287	\$ 11,081	\$ 9,768	\$ 10,675	\$ 11,911	\$ 11,911	\$ 15,312	\$ 19,737

	2012	2013	Q1 14 E	Q2 14 E	Q3 14 E	Q4 14 E	2014 E	2015 E	2016 E
Net Income	(6,737)	(26,153)	(1,802)	(2,152)	(152)	223	(3,883)	(783)	(512)
Depreciation & Amort.	198	144	212	216	221	225	875	946	1,018
Stock Comp	808	980	375	375	375	375	1,500	2,000	2,500
Other	3,866	29,386	0	0	0	0	0	0	0
Working Capital	100	(501)	(427)	413	(2,066)	(1,500)	(3,579)	(2,066)	(4,906)
Operating Cash Flow	(1,764)	3,856	(1,642)	(1,147)	(1,622)	(676)	(5,087)	97	(1,900)
Acquisition of Patents and trademarks	(163)	(290)	0	0	0	0	0	0	0
Capx	0	(3,452)	(325)	(125)	(125)	(125)	(700)	(500)	(500)
Investing Activities	(163)	(3,743)	(325)	(125)	(125)	(125)	(700)	(500)	(500)
Debt	225	(1,810)	0	0	0	0	0	0	0
Equity	1,468	7,536	500	500	500	500	2,000	2,000	2,000
Other	(17)	(9)	0	0	0	0	0	0	0
Financing Activities	1,675	5,717	500	500	500	500	2,000	2,000	2,000
Change in Cash	(\$252)	\$ 5,830	(\$1,467)	(\$772)	(\$1,247)	(\$301)	(\$3,787)	\$ 1,597	(\$400)

Important Research Disclosures



Distribution of Ratings/IB Services Chardan Capital Markets

Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [BUY]	30	76.92	10	33.33
HOLD [NEUTRAL]	9	23.08	2	22.22
SELL [SELL]	0	0.00	0	0.00
NOT RATED [NR]	0	0.00	0	0.00

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