

22nd Century Group, Inc. (XXII - \$1.95 - Buy)

COMPANY NOTE

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

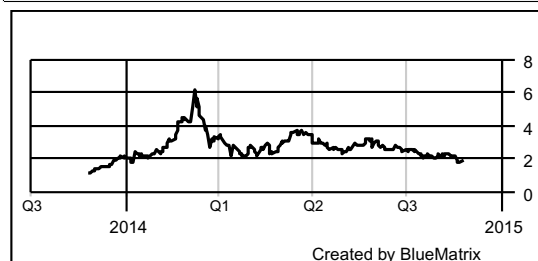
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Stock Data	11/25/14
Price	\$1.95
52 Week Range	(\$1.17 - \$6.36)
Price Target	\$9.00
Market Cap (mil)	\$123.53
Shares out (mil)	63.35
3-Mo Avg Vol	489,810
Cash per share	\$0.31
Total Debt (mil)	\$0.18

EPS (\$)					
Yr Dec	2013A	2014E		2015E	
	Actual	Curr	Prev	Curr	Prev
Mar	(0.07)	(0.09)A	–	(0.03)	–
Jun	(0.01)	(0.03)A	–	(0.03)	–
Sep	(0.32)	(0.05)A	–	(0.01)	–
Dec	(0.15)	(0.03)	–	(0.03)	–
YEAR	(0.60)	(0.20)	–	(0.10)	–
P/E	(3.3)x	(9.8)x	–	(19.5)x	–

Revenues (\$ millions)					
Yr Dec	2013A	2014E		2015E	
	Actual	Curr	Prev	Curr	Prev
Mar	0.0	0.4A	–	0.1	–
Jun	0.0	0.0A	–	0.4	–
Sep	0.1	0.1A	–	2.1	–
Dec	7.2	0.1	–	0.9	–
YEAR	7.3	0.6	–	3.5	–

One year price history XXII



Company Provides Bullish Business Update. Reiterate Buy.

We reiterate our Buy recommendation and \$9 price target on 22nd Century Group post the company's business update conference call yesterday. Our 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.

The company's focus in the near term is revenue generation and it expects a minimum of \$5 million in revenue in 2015 from the sale of RED SUN in the US, MAGIC in Europe and contract manufacturing. Revenues from all three sources are expected to begin in January next year. Distribution of RED SUN was delayed while the company received approval by the states to sell in those jurisdictions. Twelve states have granted approval, 22 are expected to approve soon and another 16 states will receive applications in December and approval is expected in January. MAGIC was delayed by the decision to change packaging in Spain so it would comply with all European regulatory requirements. The company needs NAAG approval to sell cigarettes manufactured for Smoker Friendly and hopes to receive this soon, but as NAAG approval for the MSA shows, the process is not in the company's control.

For 2015 we have revenue of \$2 million projected from these three sources, far below the company's expectation of \$5 million (minimum), so there is plenty of room for upside to our estimates. We have modeled a gradual ramp in sales, with Q1 revenue of \$125 thousand and Q4 of \$875 thousand. Our gross margin is modeled at 50%, but this will depend on the mix. Contract manufacturing has much lower margins than sale of proprietary products so if contract sales are a big portion of the mix, our gross profit estimate would be too high, and vice versa.

X-22 and modified risk remains areas of focus for the company. It is still seeking a partner for X-22 trials and recently met with FDA on a potential modified risk application. Revenue this year and next are not likely, but potential catalysts (partnerships, modified risk applications) are possible next year.

We have a \$1.5 million milestone payment built into our model for Q3 of next year. The company, however, pointed out BAT controls when a research milestone is met and when/if it enters into a commercial license agreement. Because of this, the company is reluctant to project a milestone payment this year, although it remains confident of the agreement's progress.

Tobacco is currently in China for testing and if successful could result in an order next year. However, testing will be extensive and could delay planting, which would take place in the spring. If the company

manages to complete testing in time for a spring planting, the crop would be harvested in late summer, cured and process and shipped in December. China is a very large opportunity, and could exceed the revenue from other sources in a very short order. 22nd Century indicated the size of China orders are in the \$10's of million to \$100's millions range.

Botanical Genetics, the subsidiary dealing with cannabis is (in our words) a science project for now. We think the opportunity in the long-run is large, but it will take time for the legal and regulatory frameworks to change before the path is clear for the company to generate significant revenue from this source.

We remain bullish on the shares given near-term revenue generation for multiple sources, the likelihood the company will exceed our revenue estimates and the significant upside possible from its Asian joint venture.

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.

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 an additional \$7 million over the next 12-18 months. 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 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	Q2 14	Q3 14	Q4 14 E	2014 E	Q1 15 E	Q2 15 E	Q3 15 E	Q4 15 E	2015 E
Revenue	19	7,278	448	16	64	50	578	125	375	2,125	875	3,500
Cost Of Goods Sold	68	462	178	13	306	25	522	63	188	313	438	1,000
Gross Profit	(49)	6,817	270	3	(241)	25	56	63	188	1,813	438	2,500
R&D	729	744	222	263	349	300	1,135	400	400	400	400	1,600
G&A	2,205	4,107	1,005	1,345	1,811	1,500	5,661	1,600	1,600	1,600	1,600	6,400
Pre-Mfg. Facility Costs				275	269	0	544	0	0	0	0	0
Sales & marketing	62	9	158	34	23	150	366	250	250	250	250	1,000
Depreciation & Amort.	198	144	71	124	130	125	451	150	150	150	150	600
Opex	3,195	5,004	1,457	2,041	2,583	2,075	8,157	2,400	2,400	2,400	2,400	9,600
Operating Income	(3,244)	1,812	(1,187)	(2,038)	(2,825)	(2,050)	(8,100)	(2,338)	(2,213)	(588)	(1,963)	(7,100)
Interest Expense	(1,495)	(749)	(2)	(2)	(2)	(2)	(7)	(2)	(2)	(2)	(2)	(8)
Other	0	122	86	0	(41)	0	45	0	0	0	0	0
Warrant Charge	(1,998)	(27,339)	(4,212)	74	143	0	(3,995)	0	0	0	0	0
Pretax Income	(6,737)	(26,153)	(5,315)	(1,966)	(2,724)	(2,052)	(12,057)	(2,340)	(2,215)	(590)	(1,965)	(7,108)
Income Tax Expense	0	0	0	0	0	0	0	0	0	0	0	0
Net before Minority Interest	(6,737)	(26,153)	(5,315)	(1,966)	(2,724)	(2,052)	(12,057)	(2,340)	(2,215)	(590)	(1,965)	(7,108)
Minority Interest	1	0	0	0	0	0	0	0	0	0	0	0
Net to Common	(6,735)	(26,153)	(5,315)	(1,966)	(2,724)	(2,052)	(12,057)	(2,340)	(2,215)	(590)	(1,965)	(7,108)
Shares	30,420	43,635	57,647	58,749	60,104	64,700	60,300	65,200	65,700	66,200	66,700	65,950
EPS	(\$0.22)	(\$0.60)	(\$0.09)	(\$0.03)	(\$0.05)	(\$0.03)	(\$0.20)	(\$0.04)	(\$0.03)	(\$0.01)	(\$0.03)	(\$0.11)

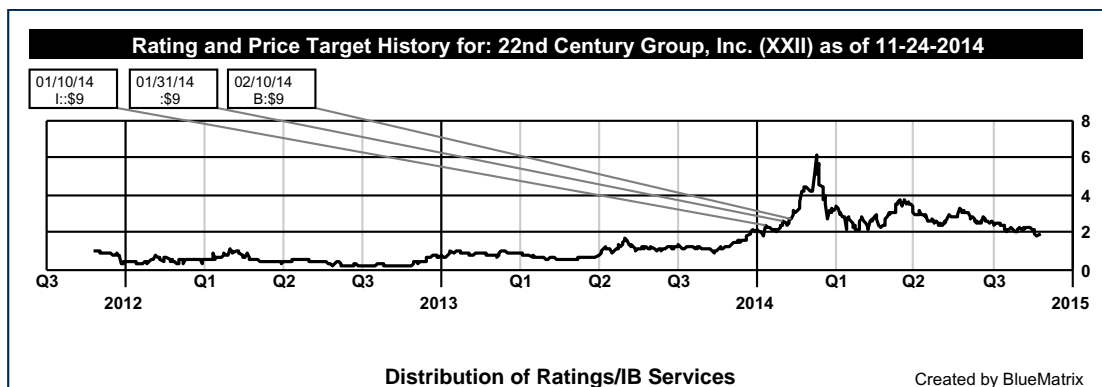
22nd Century Group, Inc
Income Statement \$ in 000s

	2012	2013	2014 E	2015 E	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E
Revenue	19	7,278	578	3,500	15,000	22,125	34,188	51,281	75,922	101,916
Cost Of Goods Sold	68	462	522	1,000	5,750	10,063	15,094	22,641	33,961	45,958
Gross Profit	(49)	6,817	56	2,500	9,250	12,063	19,094	28,641	41,961	55,958
R&D	729	744	1,135	1,600	2,000	2,300	2,645	3,042	3,498	4,023
G&A	2,205	4,107	5,661	6,400	7,040	7,744	8,518	9,370	10,307	11,338
Pre-Mfg. Facility Costs	0	0	544	0	0	0	0	0	0	0
Sales & marketing	62	9	366	1,000	1,400	2,100	3,150	3,938	4,528	4,981
Depreciation & Amort.	198	144	451	600	700	770	847	932	1,025	1,127
Opex	3,195	5,004	8,157	9,600	11,140	12,914	15,160	17,281	19,358	21,469
Operating Income	(3,244)	1,812	(8,100)	(7,100)	(1,890)	(852)	3,933	11,359	22,603	34,489
Interest Expense	(1,495)	(749)	(7)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Other	0	122	45	0	0	0	0	0	0	0
Warrant Charge	(1,998)	(27,339)	(3,995)	0	0	0	0	0	0	0
Pretax Income	(6,737)	(26,153)	(12,057)	(7,108)	(1,898)	(860)	3,925	11,351	22,595	34,481
Income Tax Expense	0	0	0	0	(664)	(301)	1,374	3,973	7,908	12,068
Net before Minority Interest	(6,737)	(26,153)	(12,057)	(7,108)	(1,234)	(559)	2,551	7,378	14,687	22,413
Minority Interest	1	0	0	0	0	0	0	0	0	0
Net to Common	(6,735)	(26,153)	(12,057)	(7,108)	(1,234)	(559)	2,551	7,378	14,687	22,413
Shares	30,420	43,635	60,300	65,950	67,950	69,950	71,950	73,950	75,950	77,950
EPS	(\$0.22)	(\$0.60)	(\$0.20)	(\$0.11)	(\$0.02)	(\$0.01)	\$0.04	\$0.10	\$0.19	\$0.29

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

	2012	2013	Q1 14	Q2 14	Q3 14	Q4 14 E	2014 E	2015 E	2016 E
Cash	0	5,831	5,373	4,173	10,021	9,214	9,214	7,596	9,894
Due from related party and officers	41	50	42	45	45	0	0	0	0
A/R	0	0	0	16	0	25	25	719	3,699
Inventory	1,231	1,406	1,652	1,733	1,748	1,021	1,021	1,359	2,848
Prepaid Consulting Fees	0	0			4,048	3,542	3,542	1,518	0
Prepaid Exp.	10	458	241	251	175	102	102	136	285
Total Current Assets	1,281	7,744	7,309	6,218	16,036	13,903	13,903	11,328	16,726
Patent and Trademark costs	1,353	1,545	1,595	1,728	5,528	5,467	5,467	5,222	4,977
PP&E	6	2,998	2,934	2,952	2,881	2,932	2,932	3,093	3,183
Equity Investment	0	0	0	0	1,393	1,393	1,393	1,718	1,718
Goodwill	0	0	0	0	852	852	852	852	852
Deferred Costs	4	0	0	0	0	0	0	0	0
Total Assets	\$ 2,645	\$ 12,287	\$ 11,930	\$ 11,241	\$ 26,690	\$ 24,547	\$ 24,547	\$ 22,214	\$ 27,456
Bank Loans and N/P	2,686	175	175	175	175	175	175	175	175
A/P	1,411	55	273	728	486	284	284	378	792
Accrued Interest	4	0	0	0	0	0	0	0	0
Accrued Expenses	503	576	700	659	1,834	1,071	1,071	1,426	2,988
Deferred Revenue	0	179	0	0	0	0	0	0	0
Total Current Liabilities	4,603	984	1,148	1,562	2,495	1,529	1,529	1,979	3,955
Warrant Liability & Other	4,173	3,780	623	549	4,068	4,068	4,068	4,068	4,068
Shareholder's Equity	(6,131)	7,523	10,159	9,130	20,126	18,949	18,949	16,166	19,433
Total Liabilities And Equity	\$ 2,645	\$ 12,287	\$ 11,930	\$ 11,241	\$ 26,690	\$ 24,547	\$ 24,547	\$ 22,214	\$ 27,456
Net Income	(6,737)	(26,153)	(5,315)	(1,966)	(2,724)	(2,052)	(12,057)	(7,108)	(1,234)
Depreciation & Amort.	198	144	71	124	130	135	461	584	655
Stock Comp	808	980	357	637	616	375	1,985	2,000	2,500
Other	3,866	29,386	4,126	(74)	68	0	4,120	0	0
Working Capital	100	(501)	(360)	167	347	360	514	1,407	(1,124)
Operating Cash Flow	(1,764)	3,856	(1,121)	(1,111)	(1,563)	(1,182)	(4,977)	(3,117)	798
Acquisition of Patents and trademarks	(163)	(290)	(37)	(52)	(371)	0	(460)	0	0
Capx	0	(3,452)	(46)	(84)	(45)	(125)	(301)	(500)	(500)
Other	0	0	539	(250)	(1,532)	0	(1,244)	0	0
Investing Activities	(163)	(3,743)	455	(386)	(1,948)	(125)	(2,004)	(500)	(500)
Debt	225	(1,810)	0	(3)	0	0	(3)	0	0
Equity	1,468	7,536	202	299	9,359	500	10,359	2,000	2,000
Other	(17)	(9)	7	0	0	0	7	0	0
Financing Activities	1,675	5,717	209	297	9,359	500	10,364	2,000	2,000
Change in Cash	(\$252)	\$ 5,830	(\$457)	(\$1,201)	\$ 5,848	(\$807)	\$ 3,383	(\$1,617)	\$ 2,298

Important Research Disclosures



Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [BUY]	31	70.45	11	35.48
HOLD [NEUTRAL]	10	22.73	1	10.00
SELL [SELL]	1	2.27	1	100.00
NOT RATED [NR]	2	4.55	0	0.00

Regulation Analyst Certification ("Reg AC") — JAMES McILREE, CFA

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Buy: Expected to materially outperform sector average over 12 months and indicates total return of at least 10% over the next 12 months.

Neutral: Returns expected to be in line with sector average over 12 months and indicates total return between negative 10% and 10% over the next 12 months.

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