

22nd Century Group, Inc. (XXII - \$1.31 - Buy)
Estimate Change

COMPANY NOTE

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

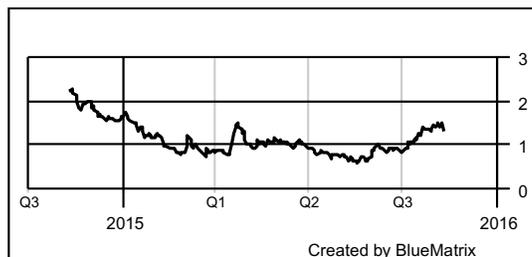
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Stock Data	11/10/15
Price	\$1.31
52 Week Range	(\$0.56 - \$2.38)
Price Target	\$9.00
Market Cap (mil)	\$92.84
Shares out (mil)	70.87
3-Mo Avg Vol	306,947
Cash per share	\$0.10
Total Debt (mil)	\$1.12

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	(0.03)A	(0.02)	–	
Dec	(0.09)	(0.02)	–	(0.02)	–	
YEAR	(0.26)	(0.14)	(0.13)	(0.09)	(0.10)	
P/E	(5.0)x	(9.4)x	–	(14.6)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	2.3A	3.8	–	
Dec	0.0	2.7	2.3	4.5	–	
YEAR	0.5	8.3	7.5	13.6	–	

One year price history XXII



Q3 Better than Expected

Q3 revenue was better than expected with revenue of \$2.7 million exceeding our \$2.2 million estimate. We believe revenue for Q4 will at least match Q3 and likely exceed that level, resulting in full year revenues of \$8.3 million. This will be the highest revenue in the company's history and evidence of the success of the company's strategy to increase contract manufacturing and sales of its proprietary products in the US and Europe.

There were other positive aspects to the quarter in addition to the financial results. After the quarter ended 22nd Century ended litigation with its former CEO which should remove some of the pressure on the shares. The company and Mr. Pandolfino agreed to resolve all disputes and the agreement calls for Mr. Pandolfino to resign from the Board of Directors and enter into lock-up agreement for his shares for the next 14 months. In addition, Mr. Pandolfino has been retained as a consultant for 30 months. There are no additional charges, (other than the consulting agreement) associated with the since the company has previously reserved for the severance.

Sales of MAGIC in the U.K., Holland, France, and Italy has paused in order to alter the taste of MAGIC, making them less harsh, less like the American brand and more in line with European tastes. MAGIC should resume sales in the fourth quarter. This should not have a significant impact on our estimates since we were cautious in our MAGIC estimates.

Contract manufacturing continues to increase with five new customers. The company does not break out sales of contract manufacturing but we think it is the majority of sales currently. 22nd Century's factory has ample capacity and we expect the company to continue to grow this revenue line.

A reduced exposure designation will be sought from the FDA, with the application submitted by the end of this year. Successfully achieving this designation, we believe, would allow the company to produce a highly differentiated product in a market where regulators have increasingly removed that ability. For instance, earlier this year the FDA sent warning letters to Santa Fe Natural Tobacco Co, ITG Brands and Sherman's 1400 Broadway NYC stating Natural American Spirit and Winston brands advertising of their cigarettes as "additive free" or "natural" violates federal regulations.

Consumers have demonstrated they want a product they believe has less risk, but the FDA has stringent guidelines preventing companies from making that claim unless they complete the FDA's modified risk program. This action adds another restriction to the industry, the first time the FDA has targeted "natural" or "additive-free" as an implicit modified risk claim. We believe 22nd Century is the only cigarette company with the technology capable of satisfying the FDA's guidelines for a modified risk claim and enabling cigarette companies

to again differentiate their products. The ability to differentiate products we believe is a potent competitive advantage.

22nd Century is targeting submitting a modified risk application for a reduced exposure designation by the end of this year for its proprietary BRAND A very low nicotine tobacco cigarettes. If it can secure sufficient funds for additional exposure studies, it would submit a modified risk application to the FDA for its BRAND B cigarette. BRAND B has the world's lowest-tar-to-nicotine ratio. There has been only one modified risk application made by the industry to date, and that application was denied.

In addition to the BRAND A modified risk application we expect further catalysts for the shares this year. These catalysts include the roll-out of RED SUN in the US, MAGIC in Europe and contract manufacturing. Other pivot points for the stock include 22nd Century's pursuit of multiple JVs in Asia (China, Japan, and South Korea) and it could consummate at least one of them this year. In addition, the company is hoping to close a deal to fund a phase 3 study for X-22.

We remain positive on the shares given near-term revenue generation for 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 and there is upside possible from its Asian joint venture. 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.

22nd Century Group, Inc.
Actual v. Estimates

Q3 15	Actual	Estimates	
Revenue	\$ 2,668	\$ 2,250	18.6%
Cost Of Goods Sold	2,949	1,945	51.6%
Gross Profit	(281)	305	-192.1%
R&D	530	400	32.4%
G&A	1,293	1,291	0.2%
Pre. Mfg. Facility Costs	0	0	NM
Sales & marketing	471	250	88.2%
Depreciation & Amort.	173	150	15.2%
Opex	2,466	2,091	18.0%
Operating Income	\$ (2,747)	\$ (1,786)	-53.8%
Interest Expense	(9)	(2)	
Other	(33)	0	
Warrant Charge	28	0	
Pretax Income	(2,761)	(1,788)	
Income Tax Expense	0	0	
Net before Minority Interest	(2,761)	(1,788)	
Minority Interest	0	0	
Net to Common	\$ (2,761)	\$ (1,788)	
Shares	70,799	67,117	
EPS	\$ (0.04)	\$ (0.03)	

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)

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
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