

22nd Century Group, Inc. (XXII - \$0.98 - Buy)

Price Target Change
Estimate Change

COMPANY NOTE

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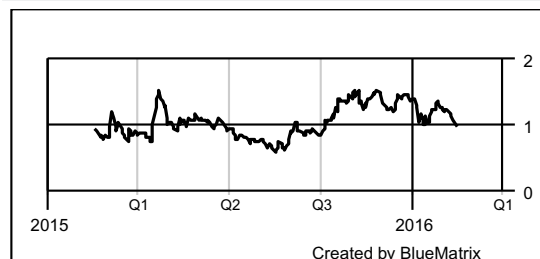
Sales and trading 7 a.m. to 7 p.m. ET, (646) 465-9090
Sales and trading 7 p.m. to 7 a.m. ET, (646) 465-9063

Stock Data	02/15/16
Price	\$0.98
52 Week Range	(\$0.56 - \$1.75)
Price Target	\$4.50
Prev Price Target	\$9.00
Market Cap (mil)	\$74.45
Shares out (mil)	75.97
3-Mo Avg Vol	509,183
Cash per share	\$0.16
Total Debt (mil)	\$1.10

Revenues (\$ millions)						
Yr Dec	2014A		2015E		2016E	
	Actual	Curr	Prev	Curr	Prev	
Mar	0.4	0.6A	–	2.6	2.4	
Jun	0.0	2.3A	–	2.7	3.0	
Sep	0.1	2.7A	–	3.2	3.8	
Dec	0.0	2.6	2.7	3.8	4.5	
YEAR	0.5	8.1	8.3	12.3	13.6	

EPS (\$)						
Yr Dec	2014A		2015E		2016E	
	Actual	Curr	Prev	Curr	Prev	
Mar	(0.09)	(0.06)A	–	(0.02)	(0.03)	
Jun	(0.03)	(0.02)A	–	(0.03)	–	
Sep	(0.05)	(0.04)A	–	(0.03)	(0.02)	
Dec	(0.09)	(0.03)	(0.02)	(0.02)	–	
YEAR	(0.26)	(0.15)	(0.14)	(0.10)	(0.09)	
P/E	(0.04)	(0.07)	–	(0.10)	–	

One year price history XXII



Adjusting Model for Capital Raise. Significant Value in Company's IP

We continue to believe 22nd Century's intellectual property, exclusive worldwide rights to all uses for certain genes that control nicotine content in tobacco plants is an asset that will be monetized in multiple ways and has a value far in excess of the current share price. The company is pursuing research partnerships with BAT, selling its own brand of high and low-nicotine cigarettes in the US and Europe, working to find a partner to fund a phase III study of X-22 for smoking cessation, and has filed an application for a reduced risk designation for its Brand A, very-low nicotine (VLN) cigarettes. In addition, the company owns 25% of Anandia, which has rights to genes that control cannabinoid levels in the cannabis plant and 22nd Century has exclusive US rights to four genes required for cannabinoid production in the cannabis plant.

The company has done a laudable job meeting its strategic milestones including a research partnership with BAT, membership in the Master Settlement Agreement (MSA), introduction of proprietary products in the US and Europe, securing a manufacturing facility, and filing a reduced exposure application with the FDA. However, we have been too aggressive in our estimates of the time necessary for the monetization resulting from these efforts. Thus, we are lowering our estimates and price target to reflect a more conservative estimate of the company's monetization efforts.

We have reduced our revenue estimate for 2016 from \$13.6 million to \$12.2 million, and assume a much greater contribution from contract manufacturing. This will result in a smaller gross margin and larger losses. The company has introduced RED SUN in the US, a high-nicotine cigarette and MAGIC in Europe, a low-nicotine cigarette, but the sales ramp we previously assumed is too aggressive and we have adjusted our estimates accordingly.

The reduced estimate for our commercial revenue estimate also results in a reduced price target. Our previously price target, utilizing a sum-of-the-parts methodology valued the company's potential BAT royalty stream at \$1.67 per share, X-22/Modified Risk at \$3 per share and the commercial revenue stream at \$4.34 per share. We still value X-22/Modified risk at \$3 per share but we are now valuing the combined value of the potential BAT royalty stream and commercial products at \$1.50 per share to reflect the slower roll-out of commercial products as well as a less steep ramp for the BAT royalties.

We have not placed a value on the company's 25% investment in Anandia, nor its exclusive US rights to four genes required for cannabinoid production in the cannabis plant. However, we think this year could be a pivotal year for the cannabis market given the number of potential ballot initiatives to legalize medical and/or

recreational marijuana in states such as California, Nevada, New Mexico, Florida, Ohio, and Maine. Marijuana is legal at the state level in states with a combined population of 145 million. States with a combined population approaching 70 million are considering legalizing medical marijuana. If this occurs, states with a population of two-thirds of the total population will have legalized marijuana and we think this will force action at the federal level. This could include rescheduling cannabis, changing IRS tax regulations, changing banking regulations or some combination of the three. Any of these would have a significantly positive impact on the industry and players like Anandia and the value of 22nd Century's investment and US rights to Anandia's technology.

We are optimistic on the company's recent application with the FDA requesting a reduced exposure designation for its VLN cigarettes. The FDA has shown interest in the past in encouraging low-nicotine cigarettes and we expect the agency to complete its process by early next year. This could have a significant impact on the value of the company since it would be the first modified risk application approved by the FDA and we believe could result in 22nd Century licensing its technology to large tobacco companies with wider distribution.

Although the FDA process will require patience, 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.

Earlier this month the company raised \$5.5 million in a private placement with one existing institutional investor. The company sold 5 million shares and warrants to purchase 2.5 million shares at \$1.21 per share over the next 5.5 years. At the end of Q3 the company had \$6.7 million and the \$5.2 million after fees, will give the company greater flexibility to pursue multiple monetization pathways for its technology and fund the operating burn which has averaged \$1.2 million for the past two quarters.

Post the transaction, the company has 76 million shares and 12.2 million warrants. However, 4.25 million warrants expire in Q3, resulting in 8 million total additional shares available from warrants.

Valuation:

We value X-22/Modified risk at \$3 per share and the combined value of the potential BAT royalty stream and commercial products at \$1.50 per share. We have not included a value for the company's investment in Anandia.

Risks to achievement of target price:

Risks to achieving our price target: 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. We assume the company is able to monetize its technology in multiple ways, but these are subject to regulatory risk, funding risk and could take longer and cost more than we expect.

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
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	\$ 2,550	\$ 8,141	\$ 12,250
Cost Of Goods Sold	68	462	498	633	2,600	2,949	2,415	8,597	10,705
Gross Profit	(49)	6,817	31	(16)	(293)	(281)	135	(456)	1,545
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	5,200
Pre-Mfg. Facility Costs	0	0	1,177	0	0	0	0	0	0
Sales & marketing	62	9	86	115	291	471	300	1,177	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	2,143	10,765	9,300
Operating Income	\$ (3,244)	\$ 1,812	\$ (11,737)	\$ (4,119)	\$ (2,347)	\$ (2,747)	\$ (2,008)	\$ (11,221)	\$ (7,755)
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)	(2,010)	(10,177)	(7,763)
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)	(2,010)	(10,177)	(7,763)
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)	\$ (2,010)	\$ (10,177)	\$ (7,763)
Shares	30,420	43,635	59,993	64,188	66,617	70,799	71,299	68,226	77,049
EPS	(\$0.22)	(\$0.60)	(\$0.26)	(\$0.06)	(\$0.02)	(\$0.04)	(\$0.03)	(\$0.15)	(\$0.10)

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	5,478	5,478	6,635
Due from related party and officers	41	50	46	46	46	46	46	46	46
A/R	0	0	0	209	449	225	370	370	514
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	2,984	2,984	3,704
Prepaid Consulting Fees	0	0	1,979	0	0	0	0	0	0
Prepaid Exp.	10	458	214	458	456	483	607	607	753
Total Current Assets	\$ 1,281	\$ 7,744	\$ 10,707	\$ 7,120	\$ 12,130	\$ 9,870	\$ 9,484	\$ 9,484	\$ 11,652
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	\$ 20,600	\$ 20,600	\$ 22,607
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	1,557	1,557	1,933
Accrued Expenses	503	576	1,294	537	1,435	1,345	1,690	1,690	2,098
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	\$ 3,750	\$ 3,750	\$ 4,534
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	13,207	13,207	14,614
Total Liabilities And Equity	\$ 2,645	\$ 12,287	\$ 21,954	\$ 18,347	\$ 23,278	\$ 21,016	\$ 20,600	\$ 20,600	\$ 22,607
Net Income	(6,737)	(26,153)	(15,595)	(4,117)	(1,289)	(2,762)	(2,010)	(10,177)	(7,763)
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	(215)	(697)	(227)
Operating Cash Flow	\$ (1,764)	\$ 3,856	\$ (6,583)	\$ (2,521)	\$ (1,083)	\$ (1,259)	\$ (1,639)	\$ (6,502)	\$ (5,013)
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	6,670
Other	(17)	(9)	7	0	0	0	0	0	0
Financing Activities	\$ 1,675	\$ 5,717	\$ 9,863	\$ (35)	\$ 5,576	\$ -	\$ 500	\$ 6,042	\$ 6,670
Change in Cash	(\$252)	\$ 5,830	\$ 572	(\$2,559)	\$ 4,353	(\$1,455)	(\$1,264)	(\$925)	\$ 1,157

Important Research Disclosures



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Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [BUY]	54	73.97	20	37.04
HOLD [NEUTRAL]	17	23.29	3	17.65
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