



CHARDAN

Company Update

March 6, 2019

Industrial & Consumer Technology

22nd Century Group, Inc. (XXII - \$1.72 - Buy)

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	03/05/19
Price	\$1.72
52 Week Range	(\$1.58 - \$3.29)
Price Target	\$11.50
Market Cap (mil)	\$213.97
Shares out (mil)	124.40
3-Mo Avg Vol	1,763,973
Cash (mil)	\$62.1
Total Debt (mil)	\$0.7

Revenues (\$ millions)					
Yr Dec	2017A	2018E		2019E	
	Actual	Curr	Prev	Curr	Prev
Mar	2.2	6.1A	-	-	-
Jun	3.9	6.9A	-	-	-
Sep	4.5	6.3A	-	-	-
Dec	5.9	-	-	-	-
YEAR	16.6	23.3	-	20.0	-

EPS (\$)					
Yr Dec	2017A	2018E		2019E	
	Actual	Curr	Prev	Curr	Prev
Mar	(0.03)	0.01A	-	-	-
Jun	(0.03)	(0.05)A	-	-	-
Sep	(0.03)	0.04A	-	-	-
Dec	(0.03)	-	-	-	-
YEAR	(0.13)	(0.04)	-	(0.15)	-

One year price history XXII



XXII: Dr. Gottlieb Resignation Drives Shares Lower

22nd Century shares fell almost 27% on news Dr. Scott Gottlieb is resigning as commissioner of the FDA next month. Shortly after the news was released shares of XXII fell sharply over fears the resignation would have negative impacts on the MRTP and PMTA applications 22nd Century has before the FDA and the impact it may have on an FDA NPRM to lower nicotine in combustible cigarettes to non-addictive levels.

The MRTP and the PMTA could be delayed and/or derailed by the resignation but we believe the odds of that are low. There is tremendous institutional momentum in the FDA's decade's long endeavor to reduce cigarette smoking. We believe Dr. Gottlieb was not the driving force in these efforts so moving forward is not directly impacted by his resignation. There is a chance a new commissioner would be opposed, but would take a meaningful source of political capital to stop.

The impact on an NPRM to lower nicotine in combustible cigarettes to non-addictive levels was expected before 2019 began, but the Federal Government shut-down delayed the process and now the resignation of Dr. Gottlieb could delay it further. Until a new commissioner is nominated by President Trump, which can be a week or a month and confirmed by the Senate which could take another two months, it would not surprise us if the NPRM lays dormant. The NPRM is an important new regulatory initiative so moving forward may need a President-nominated and Senate-confirmed commissioner. And obviously the longer the process takes the higher the chances of something else occurring that impacts the FDA's commitment to this particular aspect of its campaign against tobacco.

In our view the stock had an over-reaction but at least technically it is now in a vulnerable position, having broken through the 200-day moving average and sitting on weak support. Movement on any of the three FDA initiatives would be positive for the shares. A positive Q4 report which may occur this week could be a catalyst as well.

At the end of Q3 the company had cash exceeding \$62 million and cash burn this year has been elevated with the MRTP application. Unless another large project replaces the \$10 million or so needed to shepherd the MRTP through the regulatory process, cash burn should fall from the current \$4 to \$5 million quarterly pace. While this provides an adequate runway for the NPRM based on normal timelines investors should be reminded the free cash flow of Big Tobacco is large and 22nd Century would lose a waiting or push to the right game. Being proactive and continuing ways to leverage its position could be a call on cash.

Valuation:

Our twelve-month price target of \$11.50 is based on the company garnering royalty revenue for its technology on 10% of the US market share in the next five years, discounted at a 20% annual rate.

Risks to achievement of target price:

Risks to achieving our price target include delays in the FDA process, ability to find partners for X-22, challenges in attracting contract manufacturing and selling product overseas and possibility of requiring additional capital.

Company description:

22nd Century owns or exclusively controls over 200 issued patents, 50 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.

Required Research Disclosures



Created by: BlueMatrix

Distribution of Ratings/IB Services Chardan Capital Markets

Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [BUY]	65	66.33	18	27.69
HOLD [NEUTRAL]	25	25.51	1	4.00
SELL [SELL]	0	0.00	0	0.00
NOT RATED [NR]	8	8.16	0	0.00

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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.

Sell: Returns expected to be materially below sector average over 12 months and indicates total price decline of at least 10% over the next 12 months.

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