

22nd Century Group, Inc. (XXII - \$2.62 - Buy)

Estimate Change

COMPANY NOTE

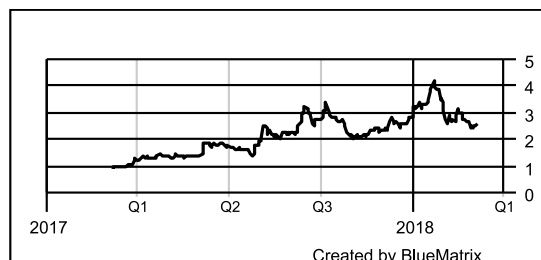
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Sales and trading 7 a.m. to 7 p.m. ET, (646) 465-9090

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

Stock Data	03/07/18
Price	\$2.62
52 Week Range	(\$0.89 - \$4.44)
Price Target	\$11.50
Market Cap (mil)	\$325.25
Shares out (mil)	124.14
3-Mo Avg Vol	4,076,397
Cash per share	\$0.50
Total Debt (mil)	\$0.00

One year price history XXII



5 Years of Cash, while FDA Moves to Limit Nicotine Levels in Cigarettes

22nd Century hosts a conference call on Thursday, the 8th at 4PM Eastern to discuss Q4 and full year results released after the market closed on the 7th. For the year the company generated over \$16 million in revenue, as it had guided to, with an EBITDA loss of \$11.4 million. At year end the company had \$62.6 million in cash or, up to 5 years of cash at the current quarterly burn of \$3 to \$3.5 million.

Share value for XXII will be driven by the FDA's initiative to lower nicotine levels in cigarettes to non-addictive levels. This will be a complex and extensive process to build the public record necessary to make this change. The FDA intends to issue soon an ANPRM (Advance Notice of Proposed Rulemaking) to develop a standard limiting nicotine levels in cigarettes to minimally or non-addictive levels. Limiting nicotine can reduce addiction by helping current users quit more easily and by keeping young people from becoming addicted, regular smokers. This could save millions of lives.

The FDA is now in the process of building the record necessary to make this change. The first step is the ANPRM, mentioned earlier, and the basis for changes to the marketplace will be supported by research such as an article nearing publication that FDA Commissioner Scott Gottlieb states, "includes updated modeling statistics for the potential positive public health impact of such a standard."

It is important for regulatory agencies to build a case that overcomes the inevitable objections by industry participants, public policy advocates, the general public and Congress. There is a large and growing body of evidence very-low nicotine cigarettes can reduce the harm from cigarettes and lead to greater rates of smoking cessation. The latest study, a 1,250-patient, 20-week study compared smokers assigned to three groups: 1) a group immediately switched to very low nicotine content Spectrum cigarettes, 2) a group smoking progressively lower nicotine content Spectrum brand cigarettes and 3) a group smoking normal nicotine content Spectrum brand cigarettes. The results have not been published but are expected soon and could be the statistics Mr. Gottlieb referred to in recent remarks to the Society for Research on Nicotine and Tobacco (SRNT) at its annual meeting

There are some who believe the market is moving to other nicotine delivery systems, like e-cigs, which probably are less harmful than combustible cigarettes and could escape the FDA's oversight. We disagree.

The research shows 90% of smokers start by age 18, 95% by 21 and 99% before they reach 26. Because of this the FDA places significant emphasis on programs and policies that reduce the incidence of smoking by the

young, and we expect will be skeptical of products that offer a path for the young to become addicted.

The company's quarterly burn is between \$3 and \$3.5 million. This can change as the process with the FDA progresses. There may be increased costs in hiring personnel and working with the FDA and third-parties in making known 22nd Century's capabilities in the market. Additionally, we believe the company will need to protect and advance its technology which could result in higher R&D and G&A. To date, most of the company's revenues have been generated by contract manufacturing. It was more relevant for the company to have manufacturing capabilities when it was looking to build its own low-nic brand, but the FDA's initiative is a better path and could make the company re-think its manufacturing strategy. This may lower expenses. For now, we are estimating revenue and income for the coming years similar to 2017 levels.

Cash will be critical. The FDA process could be long and expensive depending on additional studies that may be required to build the record as well as personnel to make 22nd Century's technology known by the relevant constituent to the FDA's nicotine limiting initiative.

We maintain our Buy recommendation on 22nd Century and reiterate our 12-month price target of \$11.50. We believe 22nd Century's patents, covering nicotine regulation in tobacco plants, is a solution to the FDA's pending regulation of nicotine levels in combustible cigarettes. We believe XXII has the opportunity to license its technology to Big Tobacco at a fraction of the cost they are currently contemplating it will take to comply with potential FDA regulations and this could result in a royalties or licensing stream far surpassing today's market cap. While our price target is based on changes in the US market we expect other countries to follow the FDA's lead, opening up additional markets for XXII and higher expected value for the shares.

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.

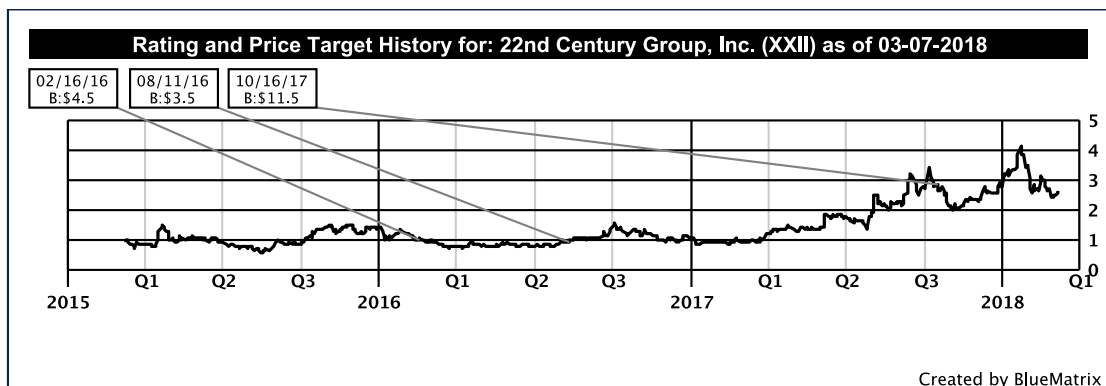
Risks to achievement of target price:

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



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Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [BUY]	69	69.70	30	43.48
HOLD [NEUTRAL]	22	22.22	1	4.55
SELL [SELL]	0	0.00	0	0.00
NOT RATED [NR]	8	8.08	0	0.00

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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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Price Target \$11.50

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.

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