

22ND CENTURY GROUP

FOURTH QUARTER AND FULL YEAR EARNINGS PRESENTATION

MARCH 9, 2023

 Nasdaq XXII



CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking statements concerning our business operations, and financial performance and conditions, as well as our plans, objectives, and expectations for our business operations and financial performance and conditions that are subject to risks and uncertainties. All statements other than those of historical fact are forward-looking statements.

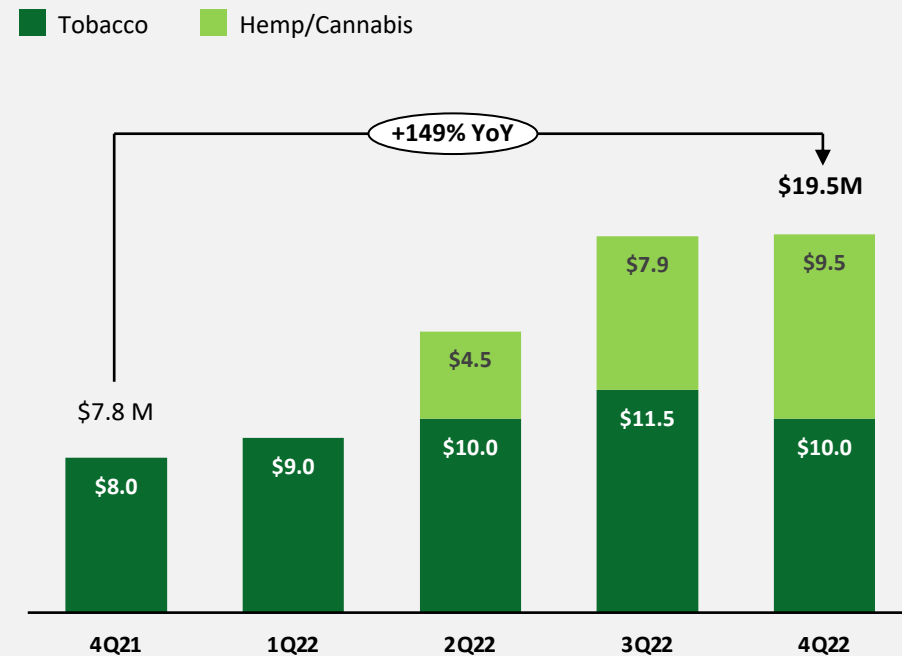
These types of statements typically contain words such as “aim,” “anticipate,” “assume,” “believe,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “potential,” “positioned,” “predict,” “should,” “target,” “will,” “would” and other similar expressions that are predictions of or indicate future events and future trends. Forward-looking statements are based on current expectations, estimates, forecasts, and projections about our business, the industry in which we operate, and our management’s beliefs and assumptions.

These statements are not guarantees of future performance or development and involve known and unknown risks, uncertainties, and other factors that are in some cases beyond our control. All forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those estimated. The contents of this presentation should be considered in conjunction with the risk factors, warnings, and cautionary statements contained in the Company’s annual, quarterly, and other reports filed with the U.S. Securities and Exchange Commission. We undertake no obligation to publicly update or revise any forward-looking statement as a result of new information, future events, or otherwise, except as required by law.

2022: GROUNDWORK FOR COMMERCIAL TRANSFORMATION

Position VLN® and Hemp/Cannabis to Scale Revenue and Transition to Cash Positive Operations

Revenue, net (in millions)



- 4Q 2022 Tobacco volumes reflected channel inventory adjustments following 3Q accelerated purchasing and California menthol changes
- 4Q 2022 hemp/cannabis revenues grew in spite of the November 2022 Grass Valley fire

Exceptional VLN® pilot results positioned for aggressive 2023 multi-state commercial launch program

- Enhanced U.S. launch with national scale distribution to support demand from largest C-Store, consumer, and pharmacy chains
- Readied to launch VLN® in up to 18 states in 2023

Maintained GVB's volumes through fire, accessed new market opportunities to drive growth and margin in 2023

- Scaled ingredient and CDMO business in U.S. and Europe; new CDMO+D model for consumer, food & nutraceutical products
- Submitted Drug Master File to FDA to produce and supply APIs for new medical and pharmaceutical industry markets

Confirmed path to cash positive in both tobacco and hemp/cannabis

- Executing clearly delineated revenue growth strategies in both business units
- Advancing to positive cash flow from hemp/cannabis and VLN® business units in 2024, including corporate overhead

2023: ACCELERATE TO CASH POSITIVE

Drive Revenue and Improve Margins by Scaling Both VLN® and Hemp/Cannabis Business Lines

Commercializing FDA MRTPLabel for VLN® Reduced Nicotine Content Products

- 2022 confirmed strong consumer demand and **ability to secure rapid VLN market share**
- **Large funnel of new national and regional retail partners** seeking access to VLN® for their adult smoker customers, 75% of whom want to quit
- **Core-Mark/Eby-Brown and others in process** accelerate distribution across multiple states
- **Commercial rollout in up to 18 U.S. States** provides access to 600+ million cartons of addressable market
- **Cash positive operations for tobacco business by second half 2024, including corporate overhead**

Rapidly Scaling GVB Cannabinoid Ingredient, API and CDMO Market Leadership

- Continued acceleration in consumer demand driving **increased ingredient volumes**
- Multiple **new major brand fully verticalized** manufacturing and retail channel management agreements in process
- Optimized plant genetics and new extraction unit to **support dramatic margin expansion**
- FDA Drug Master File enables supply of **APIs for medical and pharmaceutical industry**
- Positioned for **new food and nutraceutical markets** upon FDA regulations release
- **Cash positive operations for hemp/cannabis business by first half of 2024, including corporate overhead**

1. Grandview Research; <https://www.grandviewresearch.com/industry-analysis/us-tobacco-market#:~:text=The%20U.S.%20tobacco%20market%20size%20was%20estimated%20at%20USD%2075.9,USD%2078.3%20billion%20in%202022.>

2. Foundation for a Smoke Free World; <https://www.smokefreeworld.org/wp-content/uploads/2021/12/Global%20Trends%20in%20Nicotine%20Report%20December%202021.pdf>

FDA Authorized VLN®


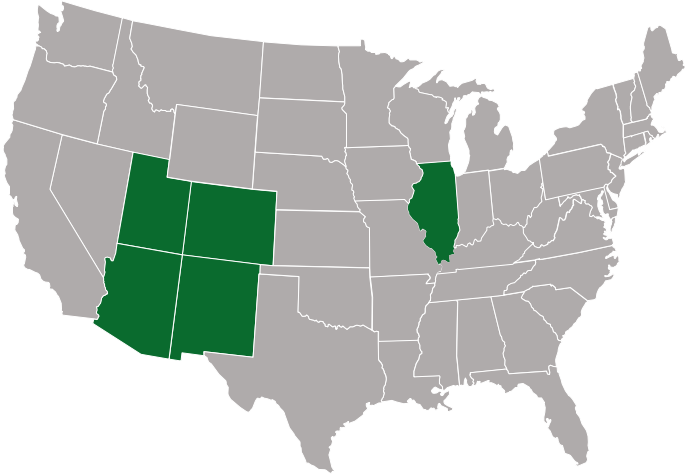


**Cannabinoid Ingredients,
APIs and CDMO**

Corporate/Financial



2022: VLN® PILOT AND FIRST EXPANSION WAVE

Leveraging Exceptional Pilot Results and Moving Aggressively Into Commercial Launch Program

PHASE		
<p>Q1-Q3 2022 – Initial Pilot and Market Tests:</p> <ul style="list-style-type: none"> ▪ Chicago pilot exceeded expectations, documented high consumer demand, demonstrated ability to achieve initial 1 share target ▪ Moved into test marketing and increased share through education, awareness, trial and repeat purchase focus 		<p>5 Initial Target States = ~7% of U.S. Cigarette Sales At ~63.5M cartons sold, a 1% market share = ~635k VLN® cartons</p> 
<p>Q3-Q4 2022 – State-by-State Distribution and Rollout:</p> <ul style="list-style-type: none"> ▪ Announced IL, CO, NM, AZ, UT targets, began initial expansion activities ▪ Initiated Pivot to national scale distributor networks ▪ Scaled VLN® team to expand into additional states and retailers across the convenience, grocery, and drug store channels via state-level relationships 		

100-DAY ACCELERATION TO NATIONAL-SCALE ACCESS

Opens Largest Distributors, Largest Retail Chains, Largest Markets

	December 1, 2022	March 9, 2023
Distribution	<ul style="list-style-type: none"> State by state with adjacent category experts 	<ul style="list-style-type: none"> Signed #1 C-store distributor in U.S. Signing #2 distributor Growing list of regionals signed and pending
Retail Access	<ul style="list-style-type: none"> #2 US C-Store chain 	<ul style="list-style-type: none"> Signing #1 C-Store chain Growing list of regional C-Store chains signed and pending Adding club and military sites
States	<ul style="list-style-type: none"> Selling in CO, IL Announced AZ, NM, UT 	<ul style="list-style-type: none"> Launching TX, CA, FL Accelerated launch via expanded distributor and C-store relationships
International	<ul style="list-style-type: none"> 1 Announced 	<ul style="list-style-type: none"> 3 Announced



INTRODUCING

VLN®

BREAK THE NICOTINE ADDICTION

HELPS YOU SMOKE LESS

95% LESS NICOTINE

Nicotine is addictive. Less nicotine does NOT mean safer. All cigarettes can cause disease.

The ONLY cigarette that lets you smoke while reducing your nicotine consumption.

TryVLN.COM

LEARN MORE

FREEDOM to choose

MADE IN AMERICA

REDUCED NICOTINE FILTER CIGARETTES

For 21+ adult smokers only.

*Trade dress subject to change.

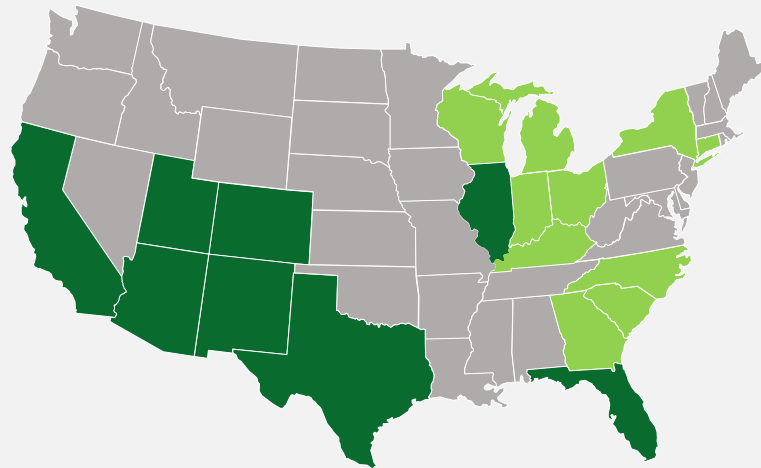
2023 VLN[®] COMMERCIALIZATION

Launching Multiple States and Chains with National-Scale Distributors and Retail Partners

Targeting VLN[®] Sales
in up to 18 States by End of 2023

Example VLN[®] Distribution: MRTP States + Adjacent States

■ Announced Launch State ■ Prospective Expansion State



Source: CDC; Current Cigarette Use Among Adults (Behavior Risk Factor Surveillance System) 2019; World Population Review Cigarette Prices by State; Internal Documents

Market Leading C-Store
& Distribution Partners



Eby-Brown



TBA #1 National
C-Store

TBA #2
National
Distributor



HUBC
Wholesaler of Cigarettes, Tobacco & More



18 Prospect Markets
56% of Total U.S. Cigarette Sales

State	% of Adult Smokers	Pack Volume	Retail Sales	
AZ	15%	160M	\$1.4B	Announced
CA	10%	514M	\$4.9B	
CO*	14%	130M	\$1.0B	
FL	15%	513M	\$3.9B	
IL	15%	253M	\$2.6B	
NM*	16%	48M	\$0.4B	
TX	15%	736M	\$5.6B	
UT*	8%	45M	\$0.4B	Priority States
Total	-	2,397M	\$20.2B	
WI	15%	184M	\$1.6B	
CT*	12%	65M	\$0.8B	
GA	16%	398M	\$2.5B	
IN	19%	328M	\$2.3B	
KY*	24%	295M	\$2.0B	
MI*	19%	351M	\$2.9B	
NC*	19%	500M	\$3.3B	
NY	13%	180M	\$2.2B	
OH	21%	467M	\$3.7B	
SC	18%	215M	\$1.5B	
Total	-	6,159M	\$43.0B	

*State with MRTP Tax Benefit

THE PATH TO CASH POSITIVE VLN® OPERATIONS

2022 Pilot and Market Test Activities Provided a Clear Path to Success in 2023-2024

2022 Confirmed VLN® Market Share Gains	2023 Accelerated Multi-State Rollout	2024 Cash Positive VLN® Operations
<ul style="list-style-type: none"> ■ Pilot results demonstrated VLN® can rapidly achieve a 1 share in new markets, then grow its position through repeat purchase and new adopters ■ Further refined the brand strategy and marketing programs with consumer studies and Colorado expansion ■ Built team for fully supported launch with national retail partners 	<ul style="list-style-type: none"> ■ New national-level distribution partners enable accelerated multi-state expansion in up to 18 states by year end ■ Many retail chains seeking to carry VLN® ■ VLN® can now launch in hundreds of stores at a time across new states or multiple states ■ Supporting investment in marketing and education to secure sustainable share position 	<ul style="list-style-type: none"> ■ VLN® targets 30+ million U.S. adult smokers, 75% of whom want to quit ■ 18 states by year end 2023 represents 600+ million cartons per year opportunity ■ 2023 launch investments generate broad VLN® availability and sustained momentum ■ Once broadly available in multiple states with major retail chains, VLN® can be cash positive at ~1.2 million cartons per year



1. Foundation for a Smoke Free World; https://www.smokefreeworld.org/wp-content/uploads/2019/08/FSFW_Global-Trends-in-Nicotine_6.22.2020.pdf

2. Prohibition Partners; "The Global Cannabis Report – November 2019"

3. Addressable market of third plant-based franchise is based on a global estimate in 2019.

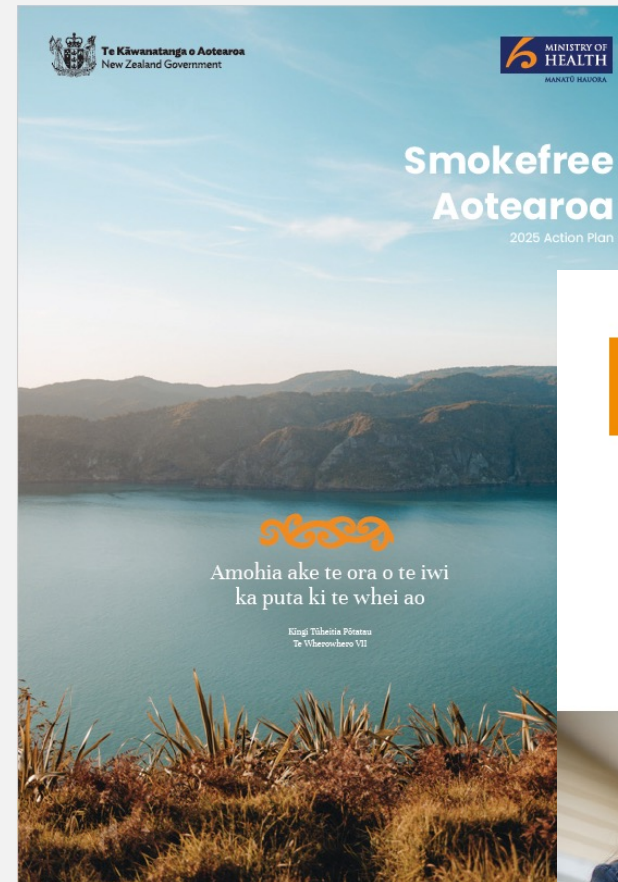
VLN® INTERNATIONAL PROGRAMS EXPAND OPPORTUNITY

New Zealand reduced nicotine mandate takes effect in ~2 years – requires all cigarettes to be 0.8mg/g or less, including test variance

Seed development program scaled to supply tobacco to the entire New Zealand market – more than 2 billion cigarettes in total

Advancing pilot programs for additional markets in 2023, including:

- South Korea (updated product)
- Japan (pilot test)
- Switzerland (pilot test)



VLN[®] CAN BE THE FOUNDATION FOR NATIONAL AND STATE HARM REDUCTION POLICIES IN THE U.S.

The science shows a **menthol ban** absent an off-ramp primarily transitions menthol smokers to traditional cigarettes

The science shows a **reduced nicotine mandate** would help all smokers more easily quit smoking or migrate to less toxic products

FDA continues to advance its scientifically based **menthol ban** and **reduced nicotine content policies**, plus state and local governments are taking direct action

VLN[®] Menthol King cigarettes could be the **only** current combustible menthol cigarette potentially **exempt** from the menthol ban.

22nd Century's research cigarettes **continue to fuel numerous independent scientific studies** to validate the enormous public health benefit FDA proposes from a reduced nicotine standard



FDA Authorized VLN®

**Cannabinoid Ingredients,
APIs and CDMO**

Corporate/Financial



EMBARKING ON HIGH GROWTH 2023

Ramping Ingredient Volumes, New Market Entry and Expanded White Label Opportunities

GVB Biopharma (“GVB”) is a global leader in the manufacturing of hemp-derived active ingredients and finished products servicing the consumer products, nutraceutical and pharmaceutical industries

Dominant North American position plus broad global footprint in geographic markets targeted for growth

- Complete, vertically integrated control from biomass to ingredients to finished goods, control for pricing, quality, purity and traceability
 - New CDMO+D model expands revenue and adds value to customers
 - New extraction unit and crop developments by 22nd Century will lead to margin expansion
-

2023 recovery from Grass Valley fire sets stage for improved scale and efficiency in GVB’s operations

On track to achieve cash positive operations in first half 2024, including corporate allocation



GVB POSITIONED FOR GLOBAL LEADERSHIP

Industry Leading Certifications Position GVB as the Supplier of Choice

FDA's Commitment to Advance Regulatory Standards and Product Recommendations on CBD Use in Consumer and Nutraceutical Products will Further Expand the Market

Prineville, Oregon: World-scale crude extraction over 15,000 kg/month at full capacity (operational Q1 2023); New ingredient and production and refinement facility with increased capacity and greater efficiency

Las Vegas, Nevada: 40,000 sq. ft. CDMO facility used for Private Label/Contract Manufacturing

United Kingdom: RXP acquisition creates leadership position in novel foods applications market

European Union: Netherlands Distribution provides increased availability to higher margin customers

Filed FDA DMF to provide **pharmaceutical grade API** differentiating GVB distillates and isolates



Crude Extraction | Prineville



GRASS VALLEY UPDATE

No Customer Shipments Missed, Returning to Full In-house Service

Grass Valley fire November 2022

- Immediate transition to supply customers via alternate sources
- **Met \$9.5M revenue target in Q4** – Fulfilled 47k kg in Q4 2022, up from 27k kg in Q3 2022

Growing volumes year-over-year in 2023

- 20k kg in Jan 2023, seeing shortage of raw hemp in market

Establishing Interim 15,000 sq foot facility

- Testing, blending, QA/QC and fulfillment with growth capacity
- See margin recovery as extraction unit and new center fully online

Build new center of excellence suited to long-term growth

- Looking at OR and NV options and economic incentives
- Target 10 million lbs. hemp biomass and 600,000 kg of extracts annually, 100,000 kg dedicated top pharma grade



TRANSFORMATIVE NEW CDMO+D MODEL

Fully Verticalized Services from Ingredient to Manufacturing to Retail Category Management

Working with the largest and best-known consumer CBD brands

- License covers broad range of hemp derived cannabinoid consumer packaged goods at each brand

New, single-source model provides complete solution

- Ingredient Supply
- White-label manufacturing
- Retail category management and distribution

Enhances GVB revenue and margin opportunities; generates incremental sales from existing VLN® sales team infrastructure

- VLN® sales team and channel to place products with retailers seeking innovative, high velocity, high margin, small footprint consumer CBD products
- New model for other consumer product CBD brands seeking enhanced services and integrated solution

POSITIONED FOR INTERNATIONAL SCALE

Global Ingredients and Finished Goods Leadership in New Emerging Markets

Netherlands Distribution Facility

- Targets \$3.2 billion Euro market opportunity
- European ingredient fulfillment with superior margin profiles
- Fully landed cost and delivery in half prior time requirements

RX Pharmaceutical Acquisition

- Accretive acquisition with 1,276 UK FSA novel foods applications
- UK food and nutraceutical leadership using GVB technical data, formulations and ingredients



White Label Contract Manufacturing Product Offering

Tinctures	Gel Capsules
Gummies	Mints
Tablets	Topical
Vape Pens	



Key Cannabinoids

Cannabinoid	Abbreviation
Cannabidiol Isolate	CBD Isolate
Cannabidiol Broad-Spectrum Distillate	CBD BSD
Cannabigerol Isolate	CBG Isolate
Cannabidiol Crystal Resistant Distillate	CBD CRD
Compliant Broad-Spectrum Distillate	Compliant BSD
Cannabidiol THC-Free Crude	CBD THC-Free Crude
UK Compliant Broad-Spectrum Distillate	UK Compliant BSD
Cannabinol Isolate	CBN Isolate
Cannabichromene Isolate	CBC Isolate
Cannabidiolic Acid	CBDA

2023 HEMP/CANNABIS GROWTH DRIVERS

Clear Global Leader in Hemp/Cannabis Ingredients, CDMO and Distribution

Operating Performance Enhancement

- Resume in-house distillate and isolate production
- New CBD crude extraction to drive incremental margin
- Scale revenue and increase gross margin across fixed cost base

Scale CDMO+D Business Volumes

- New white label plus distribution agreements establish new business model in industry
- Deep vertical integration drives further margin opportunity
- Robust pipeline of follow-on peer contract opportunities

FDA Drug Master File

- Growing number of CBD pharmaceutical trial activities represents new, high-value addressable market
- Completed FDA DMF filing to access pharmaceutical grade market currently dominated by high-cost synthetic products

Food & Nutraceuticals Market Expansion

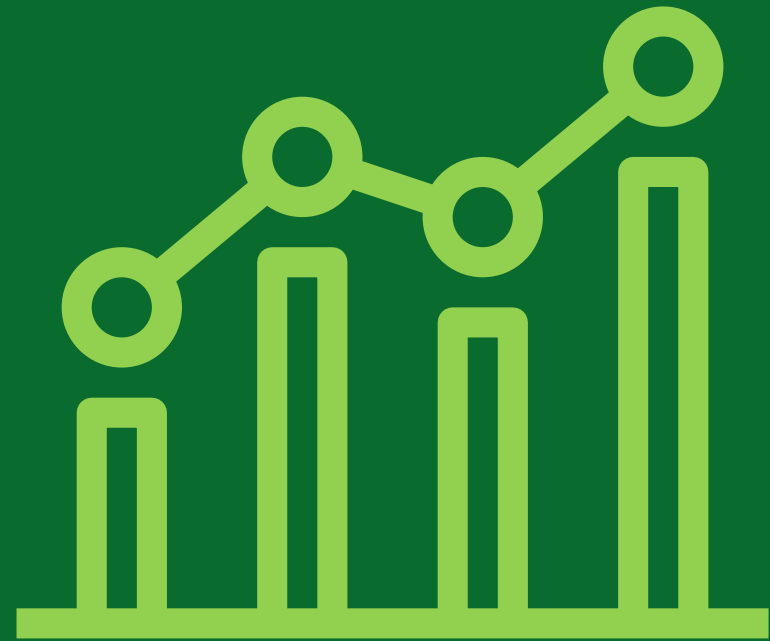
- New FDA guidelines will establish enhanced regulatory standards and validate the market
- Extensive certification and standardization capabilities distinguish GVB from smaller producers

Continued revenue growth plus improving margin and operating performance will drive hemp/cannabis to cash positive operations in 2024

FDA Authorized VLN®

**Cannabinoid Ingredients,
APIs and CDMO**

Corporate/Financial



FOURTH QUARTER 2022 FINANCIAL HIGHLIGHTS

	Net Revenues	Gross Profit ¹	Gross Margin ¹	Operating Loss	Adjusted EBITDA ²
4Q 2022	\$19.2M	\$(646)K	(3.4)%	\$(23.2)M	\$(13.9)M
4Q 2021	\$8.0M	\$231K	2.9%	\$(9.0)M	\$(7.5)M
FY 2022	\$62.1M	\$1.2M	1.9%	\$(57.1)M	\$(40.5)M
FY 2021	\$30.9M	\$1.5M	4.8%	\$(28.4)M	\$(23.1)M
+141% QoQ and 101% YoY increase in Net Revenues due to GVB acquisition.					

1. Gross profit margin is calculated by dividing gross profit by net revenues.

2. See the tables included in this release for a reconciliation of Adjusted EBITDA (a non-GAAP measure) to net loss.

TOBACCO REVENUE & PROFIT BREAKDOWN

	Tobacco	
	4Q 2022	4Q 2021
Unit sales ¹	1.3M	1.1M
Net revenue	\$10.0M	\$7.9M
Gross profit	\$(44)K	\$356K
Gross profit margin ²	(0.4)%	4.5%

- Net revenues increased QoQ based on the number of cartons sold
- Gross profit declines QoQ reflecting lower margin sales mix in contract manufacturing products and increased overhead in 4Q 22 attributable to the ramp-up in VLN[®] manufacturing

1. Tobacco unit sales volume is measure in cartons
 2. Gross profit margin is calculated by dividing gross profit by net revenues
 3. Contract manufacturing operations (CMO)

Opportunity in 2023 for additional tobacco net revenue growth and margin expansion:

- Increased sales volume of higher margin CMO cigarette customers
- Accelerated VLN[®] launch driving increased revenue and margin contribution from premium VLN[®] products

HEMP/CANNABIS REVENUE & PROFIT BREAKDOWN

	Hemp/Cannabis	
	4Q 2022	4Q 2021 ²
Unit sales ¹	41,070	14,243
Net revenue	\$9.3M	\$6.8M
Gross profit	\$(602K)	\$1.6M

Net revenue growth QoQ primarily driven by:

- Addition of acquired GVB revenue contribution
- Significant GVB organic revenue volume growth QoQ
- 4Q net revenue increased despite Grass Valley fire
- Strong consumer demand for GVB bulk ingredients and new CDMO opportunities

1. Hemp/cannabis unit sales volume is measured as kilograms.
 2. GVB acquisition occurred on May 13, 2022. All prior period results are provided for illustrative purposes only. These pro forma results do not purport to be indicative of the results that would have been obtained, or to be a projection of results that may be obtained in the futures. Refer to our Annual Report on Form 10-K Note 2 of the Consolidated Financial Statements for description of pro forma adjustments as required under U.S. GAAP.

Additional 2023 hemp/cannabis opportunity driven by:

- Organic growth reflecting continued strong customer demand
- Profit margin expansion reflecting full restoration of GVB extraction capabilities and vertical integration with new Prineville crude extraction facility becoming fully operational

NEW \$21M DEBT FINANCING

Proceeds from new credit facility will fund increased working capital needs reflecting significant growth in both VLN and hemp/cannabis business lines

Working capital needs rapidly increasing due to:

- Multiple national-scale distribution partnerships requesting VLN stock
- Continued strong consumer demand for GVB bulk ingredients as well as new CDMO opportunities

Summary of Terms:

- 3-year term
- No amortization in year 1, 2% monthly amortization thereafter
- 7% cash interest
- 5% original issue

SUMMARY BALANCE SHEET ITEMS

<i>(in millions)</i>	Balance sheet date as of:	
	Year End 2022	Year End 2021
Cash and cash equivalents ¹	\$21.2	\$48.7
Total assets	\$114.7	\$76.0
Total liabilities	\$18.7	\$9.9
Total shareholders' equity	\$96.0	\$66.1

1. Cash and cash equivalents includes short-term investment securities.

Q4 included the following non-recurring or seasonal uses of cash:

- \$4.5M replenishment of working capital from GVB fire
- \$1.9M repayment of GVB Bridge Notes
- \$2.3M VLN tobacco leaf grow

Remaining \$2.8MM GVB Bridge Notes outstanding converted to Subordinated Debt with maturity extended through May 2024

New \$21.1M Credit Facility strengthens balance sheet and provides working capital to fund strong growth for both VLN and hemp/cannabis business

Strengthened balance sheet supports growing working capital needs driven by increased VLN[®] product shipments to multiple national-scale distribution partners as well as strong customer demand for hemp/cannabis bulk ingredients.

2023: PATH TO CASH POSITIVE OPERATIONS

Growth Across Both VLN® and Hemp/Cannabis Franchises



Leveraging exceptional VLN® demand into aggressive multi-sate commercial launch program

- Launching national scale distribution to support demand from largest C-Store, consumer, and pharmacy chains
- Selling VLN® in up to 18 states in 2023

Increased volumes and new market opportunities drive hemp/cannabis growth and margin

- Scaling ingredient and CDMO business in U.S. and Europe; launched CDMO+D model
- Submitted Drug Master File to FDA to produce and supply APIs for new medical and pharmaceutical industry

Confirmed path to cash positive in both tobacco and hemp/cannabis

- Executing clearly delineated revenue growth strategies in both business units
- Advancing to positive cash flow from hemp/cannabis and VLN® business units in 2024, including corporate overhead



Questions & Answers

INVESTOR RELATIONS & MEDIA CONTACT

Matt Kreps

Investor Relations
22nd Century Group, Inc.
+1-214-597-8200

mkreps@xxiicentury.com

