

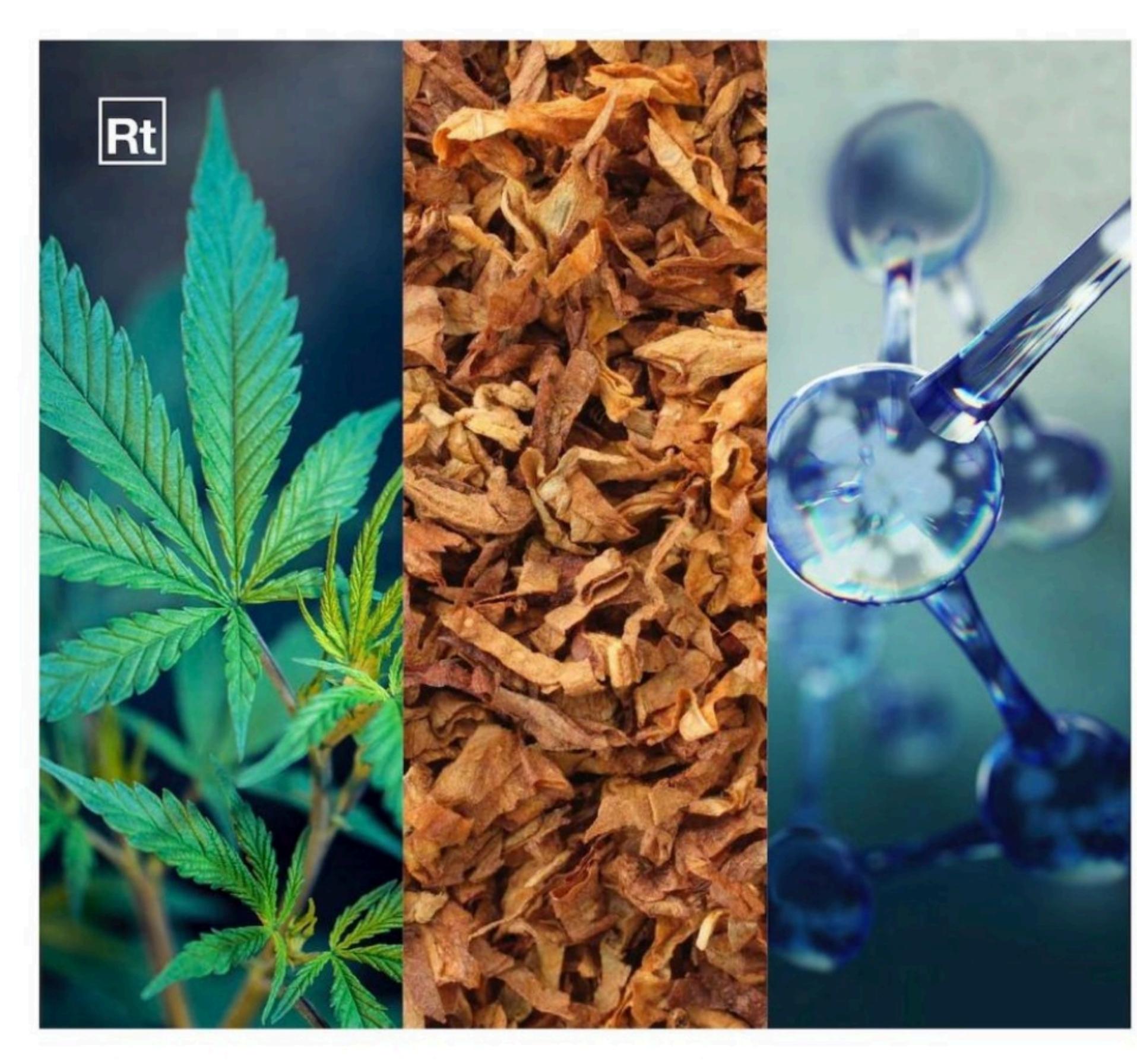


Respira
Technologies



WAVE

The World's First Carcinogen-Free Vape



Rt

COMPANY

Respira is a platform technology company that has solved an inherent problem affecting all inhalation-reliant consumer industries.

WAVE is a “substance agnostic” device, providing the world’s first carcinogen-free inhalation for **Cannabis**, **Nicotine**, and a future of **OTC** and **Rx** medicines with unparalleled efficiency in Pharma applications.

Respira’s core technologies are positioned to service a potential \$1 Trillion addressable market.



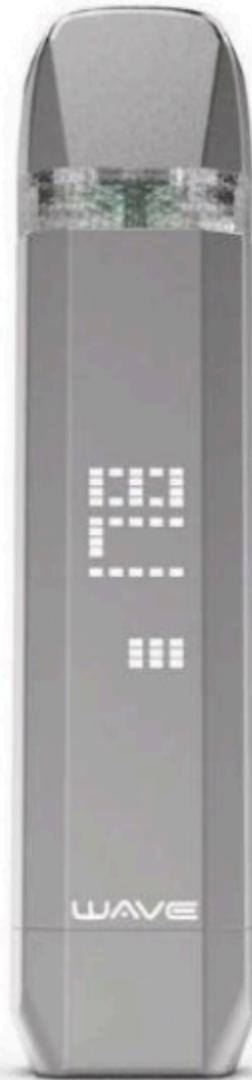
gWAVE

Delivers:
THC & CBD



WAVE

Delivers:
Nicotine



WAVE_{RX}

Delivers:
OTC &
Rx Medicines





PROBLEM

Intentionally misleading marketing campaigns and scientifically unaware companies have fooled consumers into thinking that vaping is a healthier alternative to smoking combustible products.

This problem originated in the Tobacco Industry with e-cigarettes and has now spread into emerging growth markets, like cannabis, as they have adopted the same heat-based vape technology.

MYTH:

Only combustion (actual burning) creates harmful byproducts and since vapes do not actually burn, this is avoided. **FALSE**

FACT:

All e-liquid vapes and other electronic nicotine devices (i.e. IQOS), that utilize heat as a source to aerosolize the liquid or compounds, create harmful emissions byproducts, such as: formaldehyde, acrolein and acetaldehyde.

MYTH:

Ceramic, glass architectures, organic compounds and GMP / ISO facilities make vaping safe. **FALSE**

FACT:

Although improvements in vaping technology, such as ceramic heating & wicking elements, eliminate the distribution of inhalable toxic metal particulates, the main source in the creation of unintended cancer-causing-group-1 carcinogens still is heat.



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HOW ARE THESE CREATED?

Toxic carbonyl exposure occurs when heat is used to aerosolize suspensions of propylene glycol and vegetable glycerin (all glycerol derivatives), which are the primary carrying agents found in many cannabis, hemp and nicotine-infused vape cartridges.

When excess heat is applied to these solvents, volatile carbonyl degradation products are formed at increasing rates (e.g. formaldehyde, acetaldehyde, and acrolein). These harmful byproducts have shown to wreak havoc on lung tissue.

O. Geiss et al. / International Journal of Hygiene and Environmental Health 219 (2016) 268–277

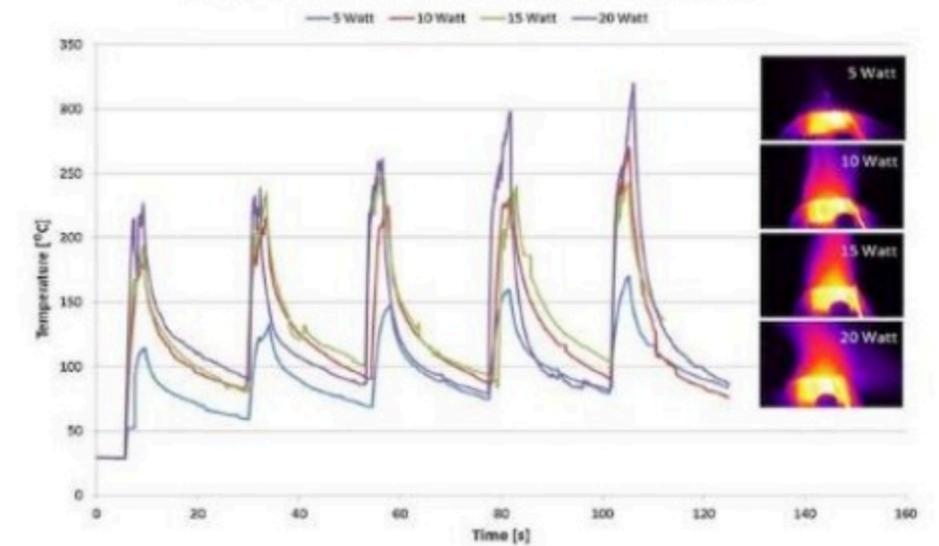


Figure: Heating Coil temperature reading utilizing thermographic images.

Sourced from Geiss et al. (2016). Temperature readings for various wattage coils are shown.

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Opinion
Vaping Is Big Tobacco's Bait and Switch
Cigarettes hooked generations of teenagers. Now e-cigarettes might do the same.

By **Janeen Interlandi**
Ms. Interlandi is a member of the editorial board.
March 8, 2019

“Vaping risk is **5 times** as high... or even **15 times** as high as the risk associated with long-term smoking.”

– *New England Journal of Medicine*

KEY STUDIES & REPORTS

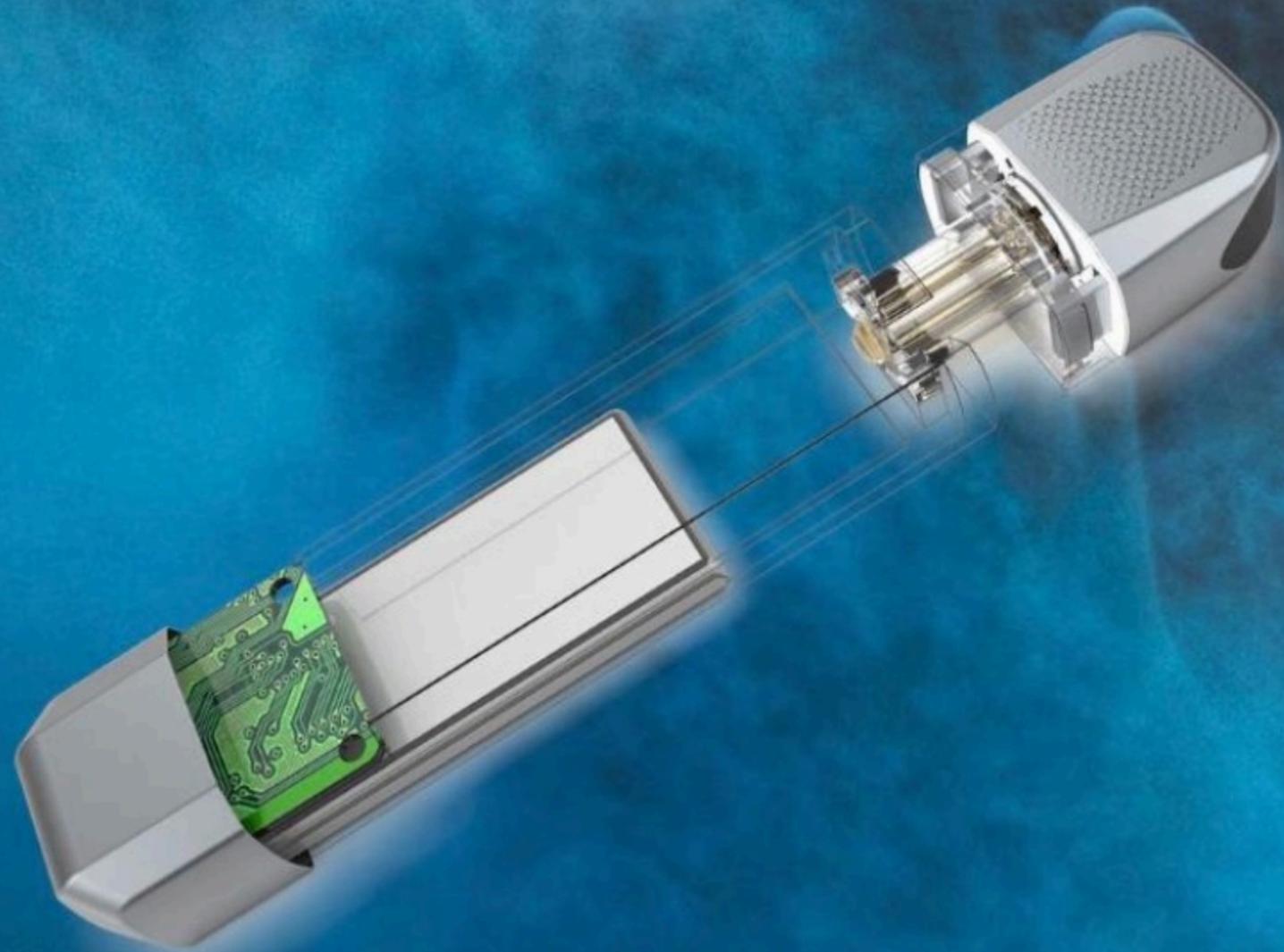
The National Institute for Occupational Safety and Health (NIOSH) recommends a 15 minutes daily exposure limit. Vape users exceeding this limit are at considerable risk for harmful amounts of carbonyl emissions, especially formaldehyde. – NIH & FDA Assessed Study

Vape aerosols can produce up to 82 compounds, many that are toxic to human health and not present to the consumer in the solutions panel.⁴

Endogenous formaldehyde concentrations have been linked to tumor formation when cellular regulatory processes are compromised.¹

Formaldehyde concentrations in heat-based vapes exceed the American Conference of Governmental Industrial Hygienists' (ACGIH) maximum allowance for workplace exposure.²

Levels of formaldehyde and acrolein in one vape device exceed the levels in 20 combustible cigarettes per day and 10X the maximum allowance for workplace exposure set by The Occupational Safety and Health Administration (OSHA).³



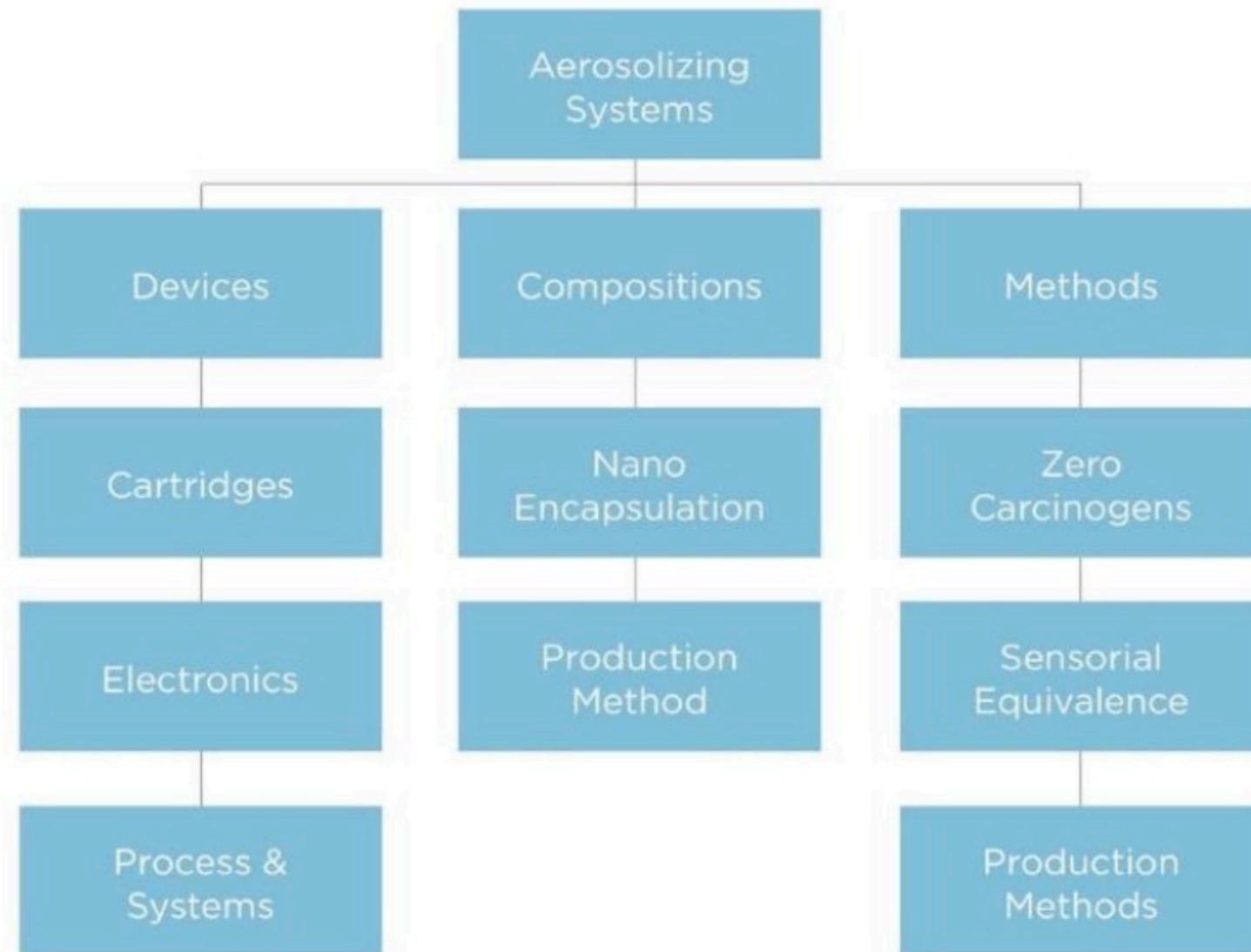
SOLUTION

WAVE – WORLD'S 1ST CARCINOGEN-FREE VAPE

WAVE is a heat-free respirable aerosol device for Nicotine, Cannabis and future Biopharma applications. Our patent pending system utilizes proprietary ultrasonic oscillation and energy transfer along with other undisclosed features for a practical, safe, enjoyable plume of aerosol or "vapor."



INTELLECTUAL PROPERTY FOCUS





ALIGNED WITH THE FDA - DESIGNED FOR MRTP

Respira's mission is to be a proponent for human health. The FDA is actively searching for innovators to tackle the world's largest problem of preventable death and as a result, has created the MRTP order — and Respira has answered the call.

IN THE AGENCY'S OWN WORDS:

“The modified risk tobacco product (MRTP) provisions of the FD&C Act may be valuable tools in the effort to promote public health by reducing the morbidity and mortality associated with tobacco use, particularly if companies take advantage of these provisions by making bold, innovative product changes that substantially reduce, or even eliminate altogether, either the toxicity or addictiveness of tobacco products, or both.”



A NEW REALITY:
INDUSTRY'S FUTURE
PACKAGING &
WARNING DISCLAIMERS

Harmful Constituent	ALL other Vape & E-cigarette Aerosols	WAVE Aerosol
Formaldehyde	YES	NO
Acetaldehyde	YES	NO
Acetyl Propionyl (also known as 2,3-pentanedione)	YES	NO
Acrolein	YES	NO
Acrylonitrile	YES	NO
4-Aminobiphenyl	YES	NO
1-Aminonaphthalene	YES	NO
2-Aminonaphthalene	YES	NO
Anabasine	YES	NO
Benzene	YES	NO
Benzo[a]pyrene	YES	NO
1,3-Butadiene	YES	NO
Cadmium	YES	NO
Chromium	YES	NO
Crotonaldehyde	YES	NO
Diacetyl	YES	NO
Diethylene glycol	YES	NO
Ethylene glycol	YES	NO
Glycerol	YES	NO
Isoprene	YES	NO
Lead	YES	NO
Menthol	YES	NO
Nickel	YES	NO

THE REGULATORY LANDSCAPE

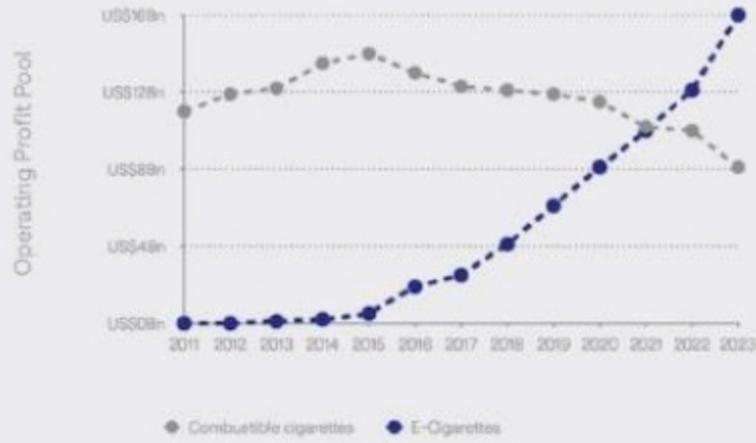
Unlike current mainstream brands, such as JUUL, IQOS and BLU, WAVE's technology is actually aligned with major upcoming policy shifts.

The **FDA's Final Deeming Rule** mandates that by **November 8th 2019**, all e-vapor (ENDS) companies **must disclose** that their products emit **cancer-causing group 1 byproducts**, classified as HPHC (Harmful & Potentially Harmful Constituents)

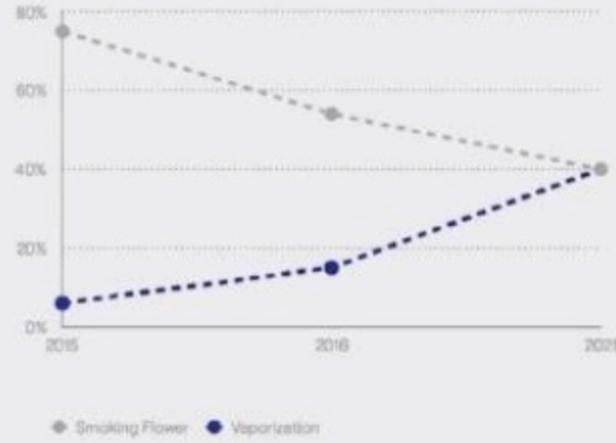
WAVE will be the only product **exempt** of these public health disclosures and new labeling laws, as WAVE's technology is unequivocally **HPHC free**.



Trend: Nicotine



Trend: Cannabis, California



Source: Wells Fargo Securities LLC

Total US Addressable Market



Source: Ackrell Capital Estimates, Chapter IV: US Cannabis Estimates

MARKET OPPORTUNITY

Our multi-vertical approach strategically positions WAVE in Cannabis, Nicotine (and BioPharma) markets – all which illustrate increasing revenue growth and high demand for vape technology.

Cannabis:

US Cannabis Market Today: \$50B

US Cannabis Market to Reach \$80B by 2030

US Cannabis Users to Increase to 15.2% by 2030

CAGR: 17.4%

Vapor Accounts for 22% of All Cannabis Sales

Nicotine:

US E-Vapor Market Today: \$8.7B

US E-Vapor Market to Reach \$27B by 2025

CAGR: 22%

Expansion Market | BioPharma



THE CANNABIS CONUNDRUM

Cannabis Vape Consumers should be aware that the problems inherent to Electronic Nicotine Vapes are their problems too — as the technology employed by both verticals is effectively the same.

The resulting detrimental health effects of current vape devices do NOT fit with the Cannabis industry's current message of being in-sync with human health and wellness.

Why?

In order to maximize the potential of the plant's active ingredient (THC), cannabis vapes decarboxylate THC by heating the e-liquid north of 400 degrees C, often exceeding temperatures of their nicotine counterparts and thereby exposing the user to even greater levels of volatile constituents.

The hotter the vape, the better the cloud, the greater the concentration of THC — and yet the worse it is for the unwitting customer.



Due to toxic byproduct emissions inherent to heat-based vaping devices, FDA regulators will NEVER allow heat-based vapes to attain Medical Device status – effectively preventing future applications for federally sanctioned, insurance reimbursable respiratory therapeutics.

These products are destined to remain in the consumer and “retail-healthcare” markets.

Zero Carcinogens
Aligned with
Public Health &
FDA



Successful
Consumer Form
Factor & User
Experience



Though these devices eliminate toxic byproduct emissions, the potential for high consumer adoption is exceedingly low. Consumers don't enjoy propellant-based impingement devices – as there is no pleasure and limited practicality in the use case. Form Factor is detrimental to Market Adoption.

Additionally, these devices are not subject to defensible IP as they are not novel or differentiated enough from prior art and expired IP, such as a typical albuterol inhaler.



These mid generation medical nebulizers eliminate toxic byproduct formations, but the potential for consumer adoption is exceedingly low. Consumers don't enjoy lugging around a medical nebulizer – as there is no pleasure nor practicality in the use case. Form Factor is detrimental to Market Adoption.

Additionally, these gravity-fed nebulizers are not subject to defensible IP as they are not novel or differentiated enough from prior-art and expired medical device IP.



As the world's first carcinogen free vape, WAVE will be a viable contender for future medicinal insurance reimbursable therapeutics, in addition to already staking its claim as the only HPHC free vape for all inhalation reliant consumer verticals.

WAVE is truly novel and embodies numerous differentiated technologies and is guarded by defensible IP.



COMPARISON

Comparing WAVE to other Cannabis Inhalation Devices

For recreational and medical use

WAVE is designed to be the market leading aspirational brand that is actually aligned with public health policy.

Respira's WAVE is forward thinking in its technology and regulatory alignment, offering a health conscious solution to future biomedical delivery of respirable cannabis products.



Macro Category	Macro Trend	Related to the Industry
Demographic	Growth of Millennial Consumer Group	Millennials comprise large % of consumers in this space
Sociocultural	Societal Rejection of Traditional Smoking	Overall distaste by Society for traditional smoking
Sociocultural	Growth of Health Conscious Consumer	Undeniable Conclusions on Toxic Effects of Smoking
Regulatory	Sweeping Reform of New Health Related Products	New Products w. Explosive Growth and Health Risks, generally experience dramatic Reform / FDA to sternly regulate
Political / Legal	Gradual Acceptance of Cannabis	States are searching for New Business and Tax Revenue (i.e. Cannabis commerce is becoming welcomed)
Technological	Consumer Access to Information	Big Tobacco can no longer deceive/cover up harmful constituents in their products
Economic	Disposable Income and Spending Increases	Consumers have more to spend on recreational goods such as Cannabis
Global	Ease of International Product Offerings	Ease and increase of overall globalization and cross-border product sales

INDUSTRY TRENDS & MACRO ANALYSIS

Several key macro-trends, or broad overall environmental movements, have created the need for Respira's proprietary device.

The following macro-trends have and will continue to shape the overall industry product offerings, as well as consumer behavior. Respira has paid close attention to these overarching macro trends in their technology development, product design, and anticipated partnerships.

In summary, the key macro-trends involved in shaping Respira's strategy:

- Increased growth of and usage by a Millennial client base
- Overall societal intolerance of traditional smoking
- Continued health awareness by consumers
- Anticipated regulatory impacts by FDA
- General acceptance and growing legality of Cannabis



MONETIZATION MODEL

Cannabis and CBD:

- Develop D2C Brand for E-commerce and Retail Distribution.
- Technology License & Partnership Agreements with Leading Manufacturers, Growers and Fillers.

Nicotine (ENDS):

Scenario A: MRTP Ready

- Innovation Bonus or NRE License Agreement to be secured with a Big Tobacco Partner.

Scenario B: MRTP Order Granted

- Exclusive License Agreement or Sector-based Acquisition with Big Tobacco Partner.

Biopharma

- Future Technology License(s).
- Combination Medical Device JV with OTC & Rx Drug Manufacturers.