



Dwyfor - Lion Industries

Market Intelligence Plan

Management of New Product Development
Assessment – A

Malvin Gonzales
Bethan Lewis
Ryan Prosser

Introduction

Lion Laboratories

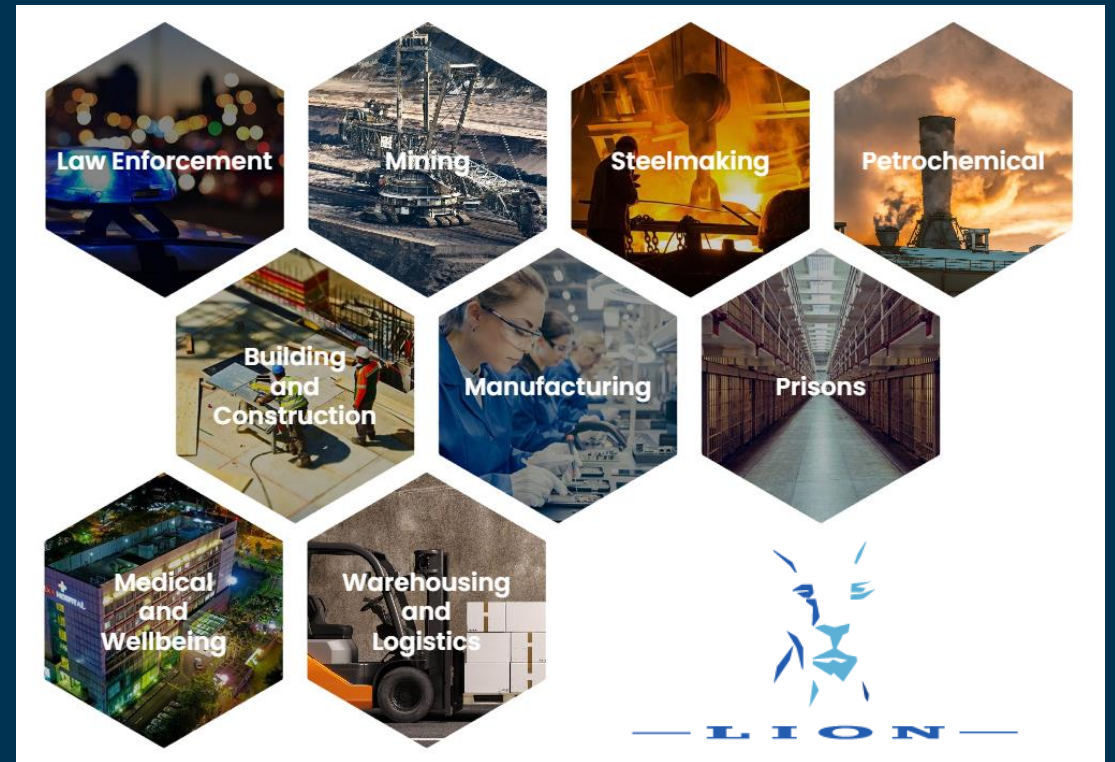
Introduction



- Lion Laboratories are in the early stages of developing a new concept that integrates their chemical alcohol detector technology which is in the heart of their Breathalyzer devices.
- The concept aims to expand the use of the technology to detect other organic materials such as various virus infections are identifiable by breathing.

Introduction

- Lion Laboratories revolutionised road safety, introducing the World's first electronic breathalyser responsible for prosecuting drink drivers (Business Wales, 2023).
- At present, Lion Laboratories devices are widely used in several industries which spans across a range of global markets.



(Lion Laboratories, 2023)

Existing Market Presence



Education

Devices used to support experiments, research, and enforcement of policies



Personal

Devices help avoid driving or other potentially dangerous situations when over the alcohol limit



Law Enforcement

Provides devices to police forces around the world for use in traffic stops and investigations



Industrial and Commercial

Safety critical roles demand workplace testing



Medical

Critical for diagnosis, monitoring and accident investigations

(Lion Laboratories, 2023)

What business are we in?

Bethan Lewis

Current Market Position

- Global Leaders in the supply of electronic breathalysing devices
- Manufactured for the use in Police Forces all over the World (UK, Denmark, Malaysia, Thailand, Oman, Switzerland, Namibia, Australia)
- International sales account for 70% of trade, exporting to over 70 countries
- Recently secured a contract with the Finnish Government worth over £1m for devices used by the Police, Border Enforcement and Prison Services
- Aim to grow presence in Europe and regain pre-pandemic export levels of above 85% turnover

(Business Wales, 2023)



Existing Product Portfolio

- Lion Laboratories existing product line are divided into four product ranges:



Rapid Screening

lion AlcoBlow®

Protects workforce from intoxication quickly and effectively with the contact-free, rapid screening devices.



Screening

lion Alcolmeter®

Quickly and effectively measure breath alcohol levels, providing a result in seconds.



Interlock

lion DS®

Vehicles of any type fitted with our DS®-25 Interlock device will only start upon a successful breath test.



Evidential

lion DS®

Instruments for use with law enforcement and forensic investigations, along with training and expert witness services.

Lion Laboratories Alcometer® is the longest running line in the range now in its third generation

Focus on Safety and Regulation

Lion Laboratories revolutionised road safety, introducing the World's first electronic breathalyser responsible for prosecuting drink drivers (Business Wales, 2023).

Product range has grown with a focus on improving safety and regulatory features

- Lion Alcometer 700 – Approved by Home Office for UK Police use
- Lion DS Interlock – For use as a vehicle immobiliser, eliminating potential of drink driving
- Lion Intoxilyzer 9000 – For use in evidential procedures
- CMI Intoxilyzer 800 – With added safe and sanitary side exhaust minimising operator exposure to exhaled breath

(Lion Laboratories, 2023)

What business are we in?

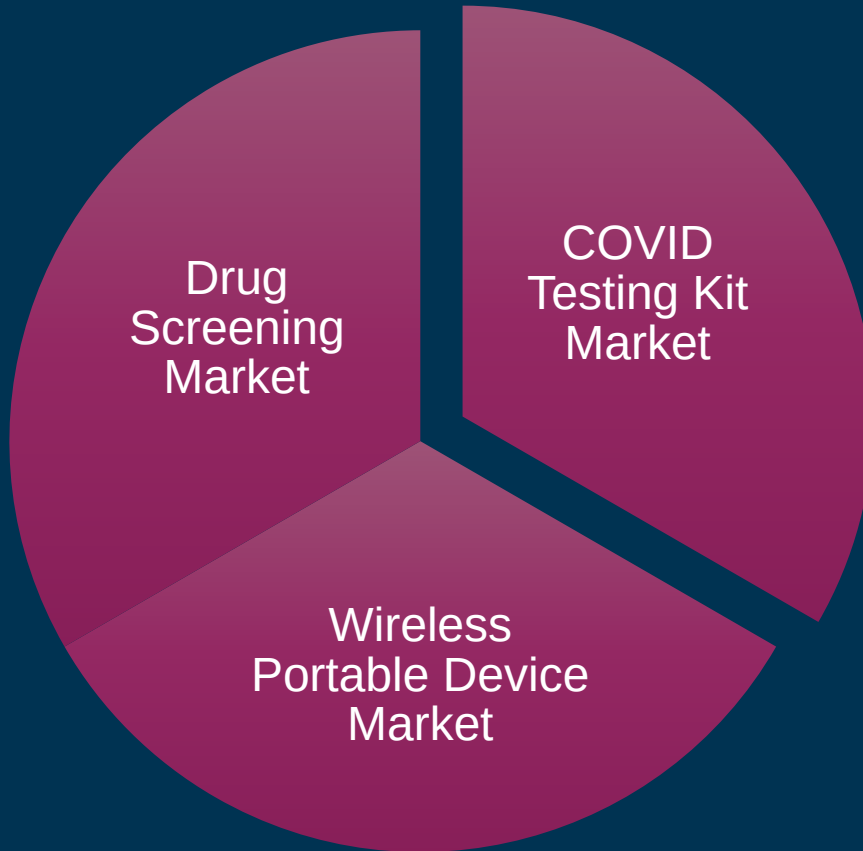
- In 2022, The global alcohol Breathalyzer market is estimated to be valued at **US\$ 5 million** in 2022 (Coherent Market Insights, 2022)
- At present, despite the company's presence in different industries, the main market that the company is driving is solely in the production of breathalyzer devices.
- The company will need to consider whether other markets can help the business grow as well as innovate the use of the CDS (Chemical Detector System) for other means of use.



What business(es) could we be in?

Bethan Lewis

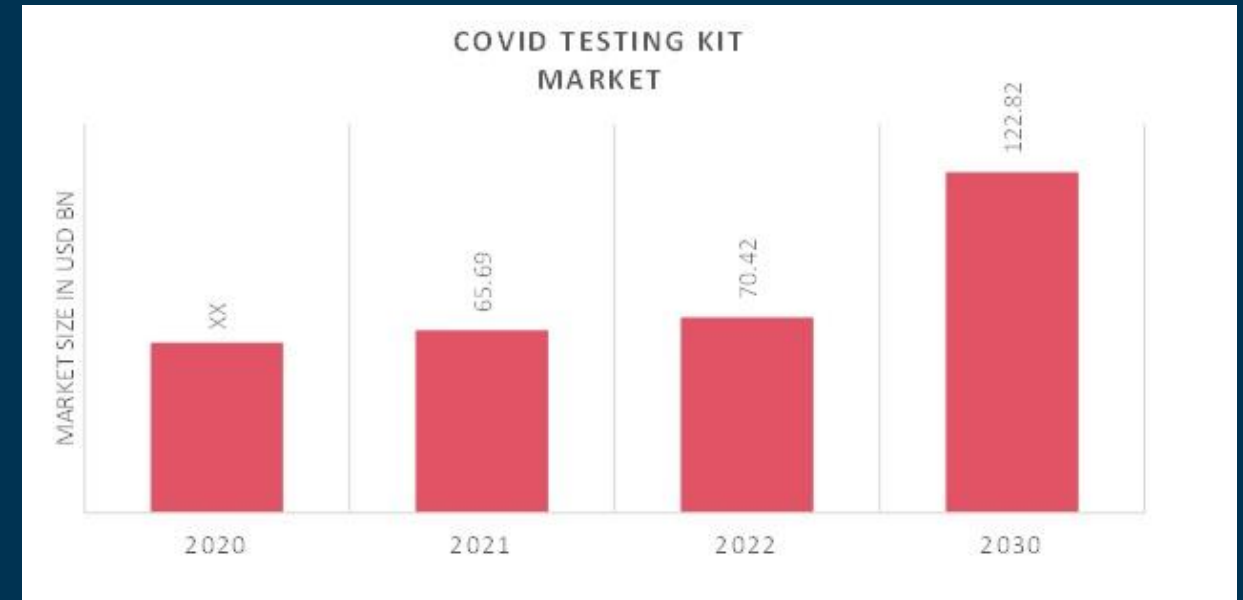
New Market Position and Business



- Possible market position and business opportunities have been identified to suit the CDS technology
- Three key markets have been identified for consideration for the business to disrupt with their innovative system

COVID Testing Kit Market

- The development of a CDS (Chemical Detector System) can help the business propel into new market
- In 2022, the COVID Testing Kit Market was valued at **US\$70 billion** (Market Research Future, 2023)
- Further growth in this market is estimated in the next couple of years with the market estimated to be valued at **US\$122 billion** in 2030 (Market Research Future, 2023)
- Such market can benefit with the use of the CDS as well as disrupt a market with a far greater value than the business is currently catering for



(Market Research Future, 2023)

Drug Screening Market



- Another market for consideration is the drug screening market with the possibilities of the innovating the CDS detect illegal drugs
- The drug screening market current holds a value of **US\$ 7 billion** (Future Market Insight, 2023)
- Drug misuse are currently on the rise all around the world (Future Market Insight, 2023)
- Drug use problems are expected to affect 36.3 million individuals worldwide which accounts for 13% of the global population (Future Market Insight, 2023)
- This market can be segmented separately to the breathalyzer market and so the value of this market is promising for the business to consider

Wireless Portable Device Market

- Wireless portable device market was valued at **US\$ 15 billion** in 2023 with an expected growth to **US\$ 33 billion** in 2030 (Fact.MR, 2023)
- Wireless portable medical devices are widely used in application such as monitoring, medical, therapeutics, and diagnosis
- This market has proven useful to cater to the growing needs of advanced healthcare services
- Key opportunities in the development of portable medical devices to monitor real time health of patients can provide new ground for the business
- With the business already being present in the medical sector, key inputs from existing users in the field will further benefit the project



(Fact.MR, 2023)

Determine what marketing knowledge is likely to be required for the development of this new product

Ryan Posser



Market research delivers an important role in the business analysis process as it provides a good understanding of environmental factors as well as aids in observing the comparative positioning of the business with respect to its competitors

(Tu Cao, et al., 2012)

Market Knowledge



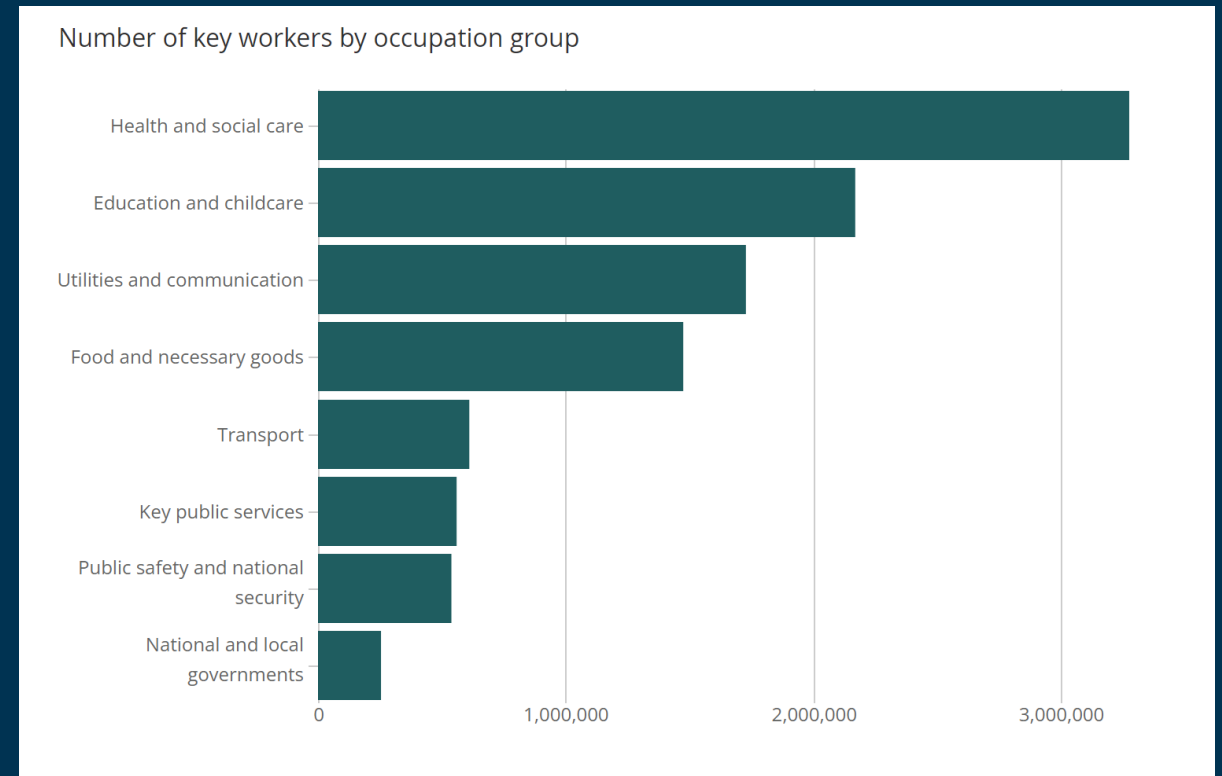
Gap Analysis:

- To be used to understand the differences between the customer and producer view or experience of a product or service.
- Can benefit the business by identifying key requirements that existing products or solutions aren't currently meeting (Trott, 2016).

Market Knowledge

Key Target Users

- Understanding target users is a key step in the development of a marketing strategy for a product or services (Chernev, 2018)
- Example: Key target users for the CDS as ***“Essential Key Workers and Mass Gatherings (i.e. Concerts, Sporting Events, Frequent Travellers)”***



(Office for National Statistics, 2020)

Market Knowledge

Market Trends

- Non-Invasive Testing Methods
- Smart Devices
- Data Analytics
- Phone App Integrations

Market Understanding

- Regulatory Requirements (MDR)
- Testing Standards
- Distribution and Market Channels





Firms like Lion with a deep knowledge base are better able to attain radical innovation through enhanced market knowledge acquisition rather than internal knowledge sharing.

(Zhou, & Li, 2012)

Market Knowledge

BRAND	DETAILS	TECHNOLOGY
InspectIR	FDA approved COVID19 Breath Based Tester	Breath Based Technology
SpiroNose	Measures mixture of substances (biomarkers) in the exhaled air	Breath Based Technology
Aenose	Portable breath analyzer, for the detection of pathologies such as lung- and colon cancer	Breath Based Technology

Existing Competitors and Solutions:

- Gain understanding of similar research and development relating to breath based testing systems and technologies.
- Investigation within existing approved devices which utilises different testing method outside of the conventional lateral flow testing.



InspectIR



SpiroNose



Aenose

Marketing Sensing Processes

Malvin Gonzales



Marketing sensing is the dynamic capability of a firm to acquire market knowledge. It has been identified as a unique capability that facilitates the development of innovative products

(Khan, et al., 2022)

Market Sensing - Four Phase Approach



Defining the Market

Is the new product venture difficult to separate between the current offerings of the company?

e.g.

Breathalyzer Device VS
COVID Testing Kit Market



Monitoring Competition

Existing COVID Testing Kits
(i.e. Lateral Flows)

New Methods of Testing

(i.e. Existing Patents, University
Projects Relating to Breath and
COVID)



Customer Value Assessment

Are customers interested in innovative advanced products?

How will such product / solution provide value to the customers?

e.g.

Market Research &
Use of Market Sensing Tools like
Value Proposition Canvas



Gaining Customer Feedback

Understanding if the product will provide benefits to the customer

Recognise current pains of existing users of competitor products

e.g.

Value Proposition Canvas

(Tu Cao, et al., 2012)

Market Sensing - Benefits

The proposed use of Market Sensing techniques will:

- Help identify / sense if the market or its customers really want such products or solutions (Tu Cao, et al., 2012)
- Help assess how technologies will evolve and how and when competitors, suppliers, and customers will respond (Teece, 2007)

Teece, 2007 indicated that the probability that an **innovation** will be successful commercially is highly correlated with the business understanding of user/customer needs.

(Teece, 2007)

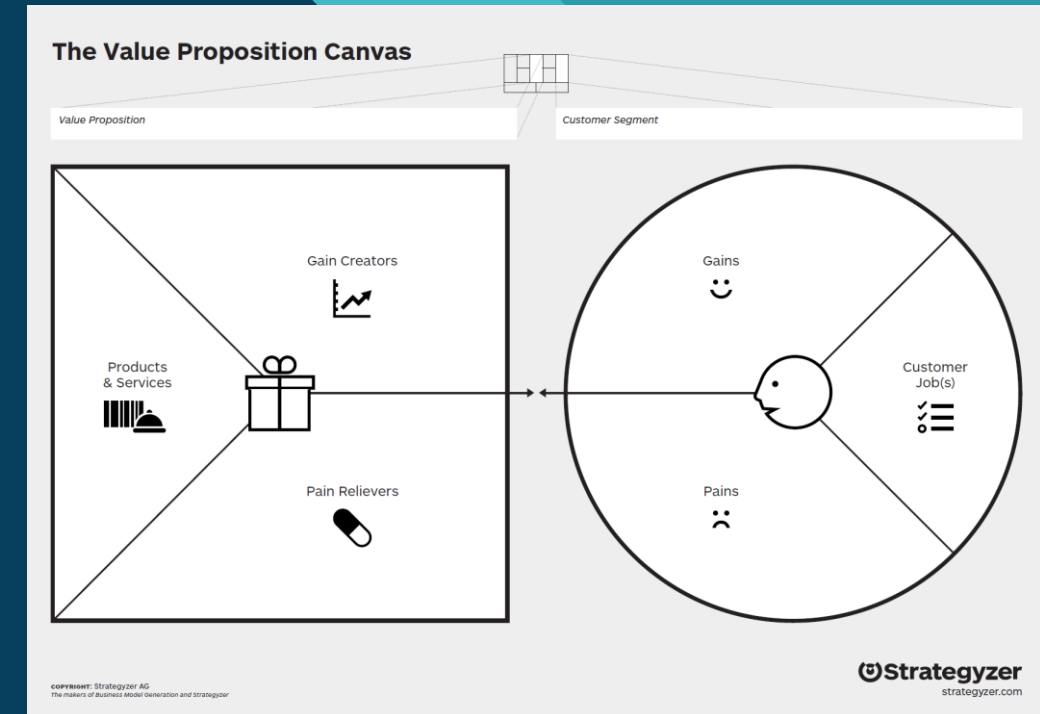
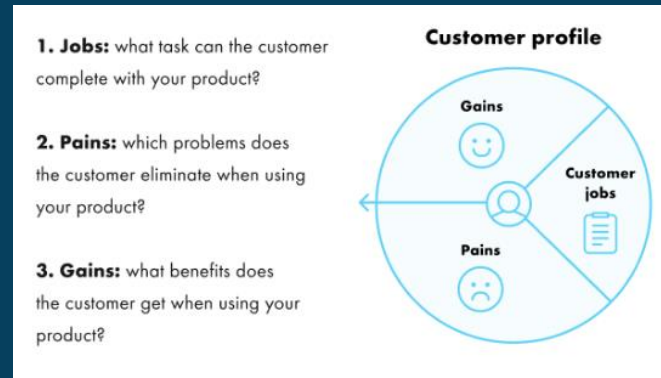
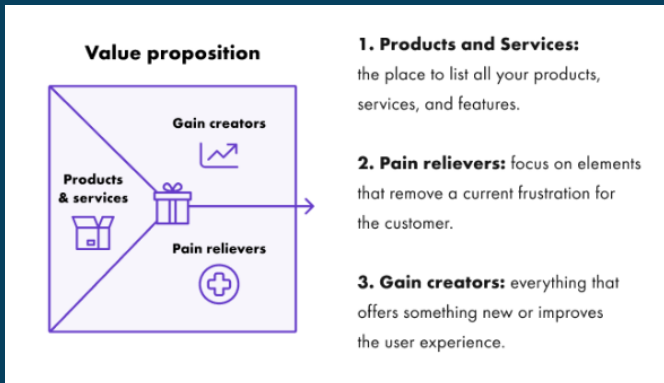


Customer Value Proposition Scenario

Malvin Gonzales

Value Proposition Canvas

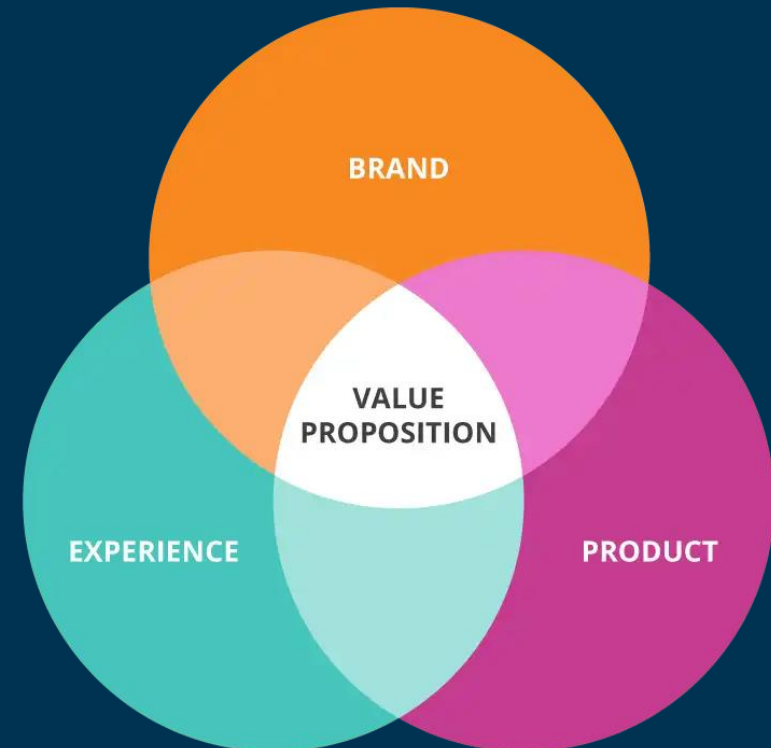
- The Value Proposition Canvas is a **market sensing method** that focuses on **understanding the customers problems** and producing products or services to solve them (Varga, 2020)
- The canvas is critical to a business model as it helps a business in decision making and positioning of the product.
- The canvas provides alignment between the proposed business strategy and the user needs.



(Strategyzer, 2023)

Value Proposition Canvas

- Lion Laboratories will benefit with the use of the canvas as we consider a new market sector.
- Using the canvas can help see if the market really needs a particular product or not.
- It also provides an understanding on the proposed product offering as well as outline of current customer problems.
- The canvas will help the business to define its customer value proposition.



(Varga, 2020)

Value Proposition Canvas

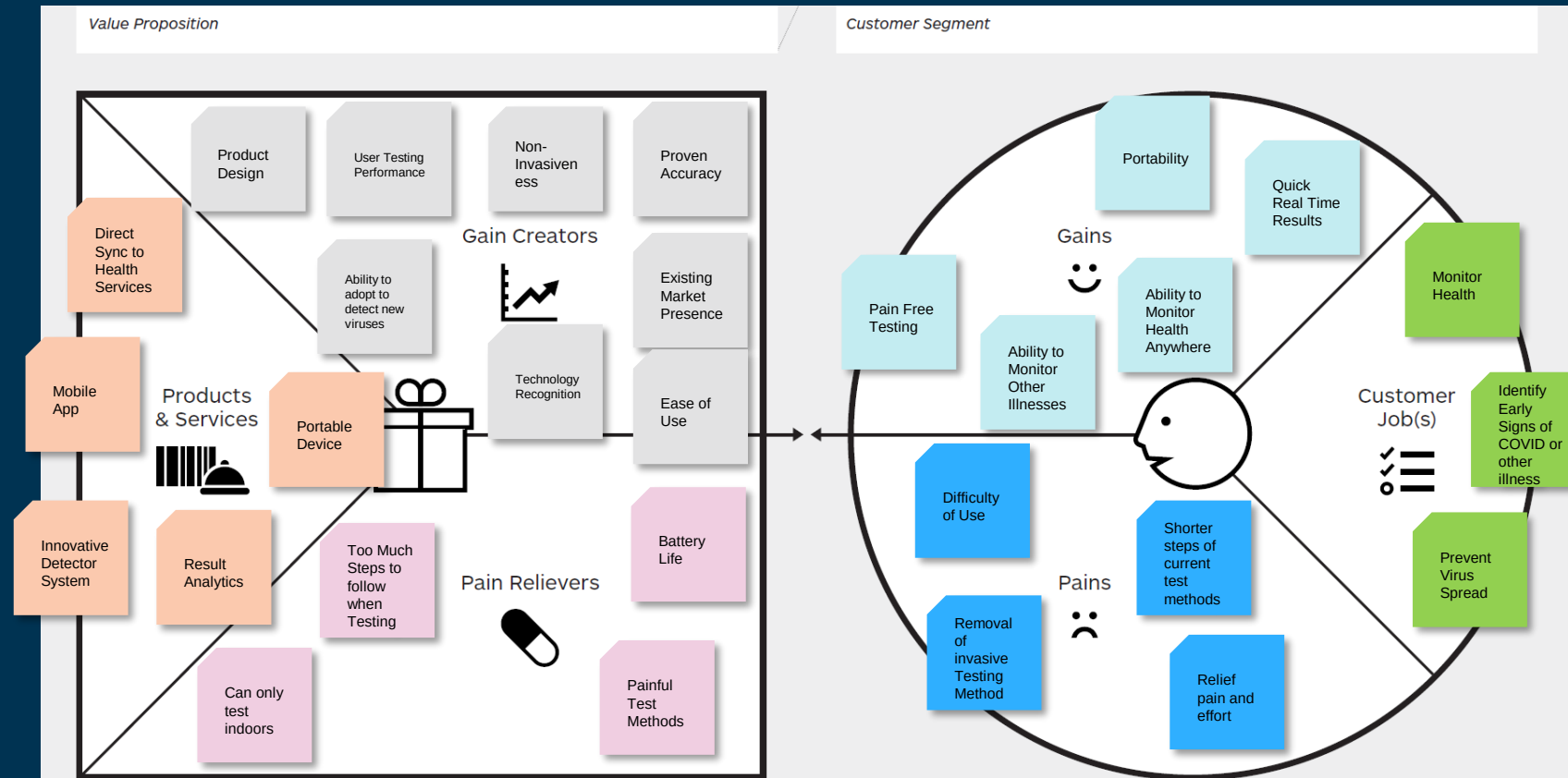
COVID Chemical Detector System Device “COVID Testing Kit Market”



User Profile:

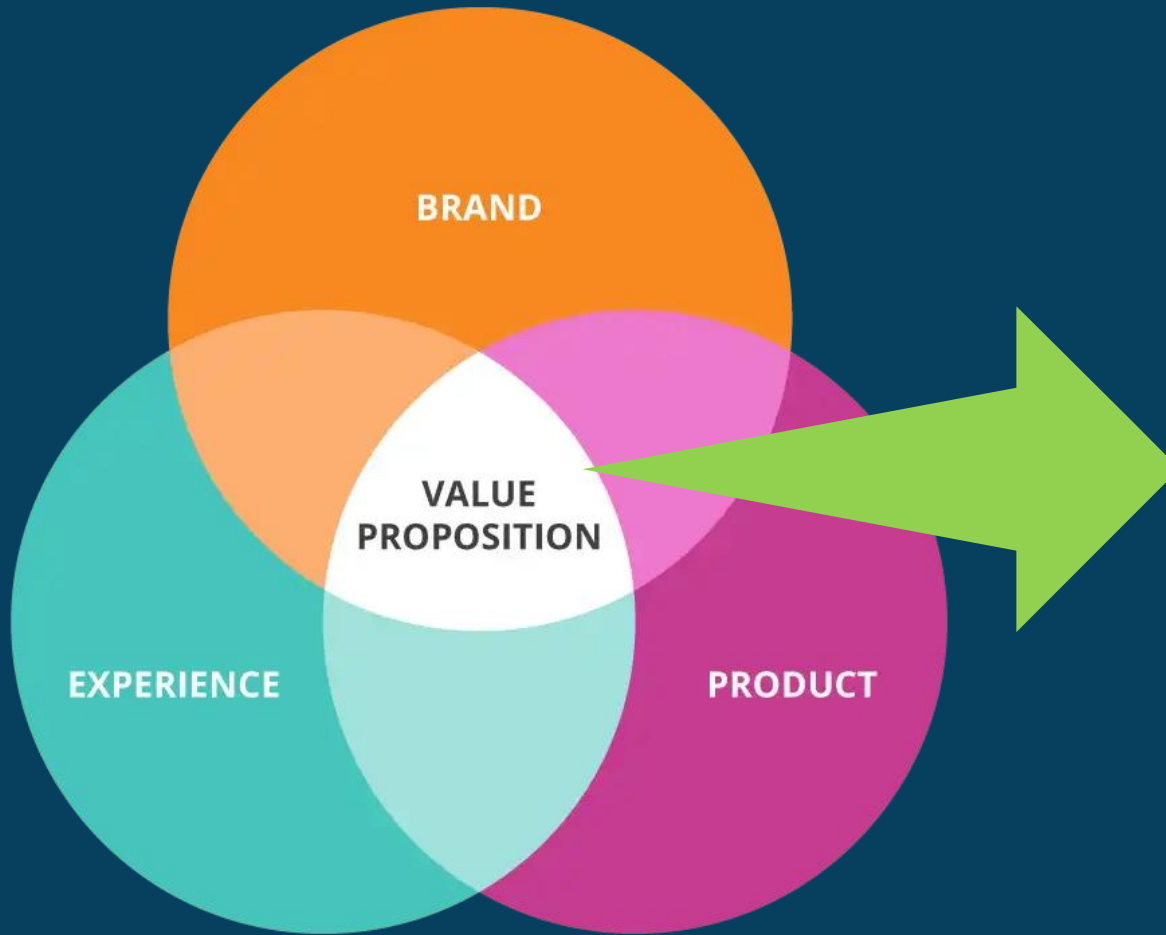
Middle Class – Male

Salary - £27,000 – £35,000



(Strategyzer, 2023)

Lion Industries Value Proposition

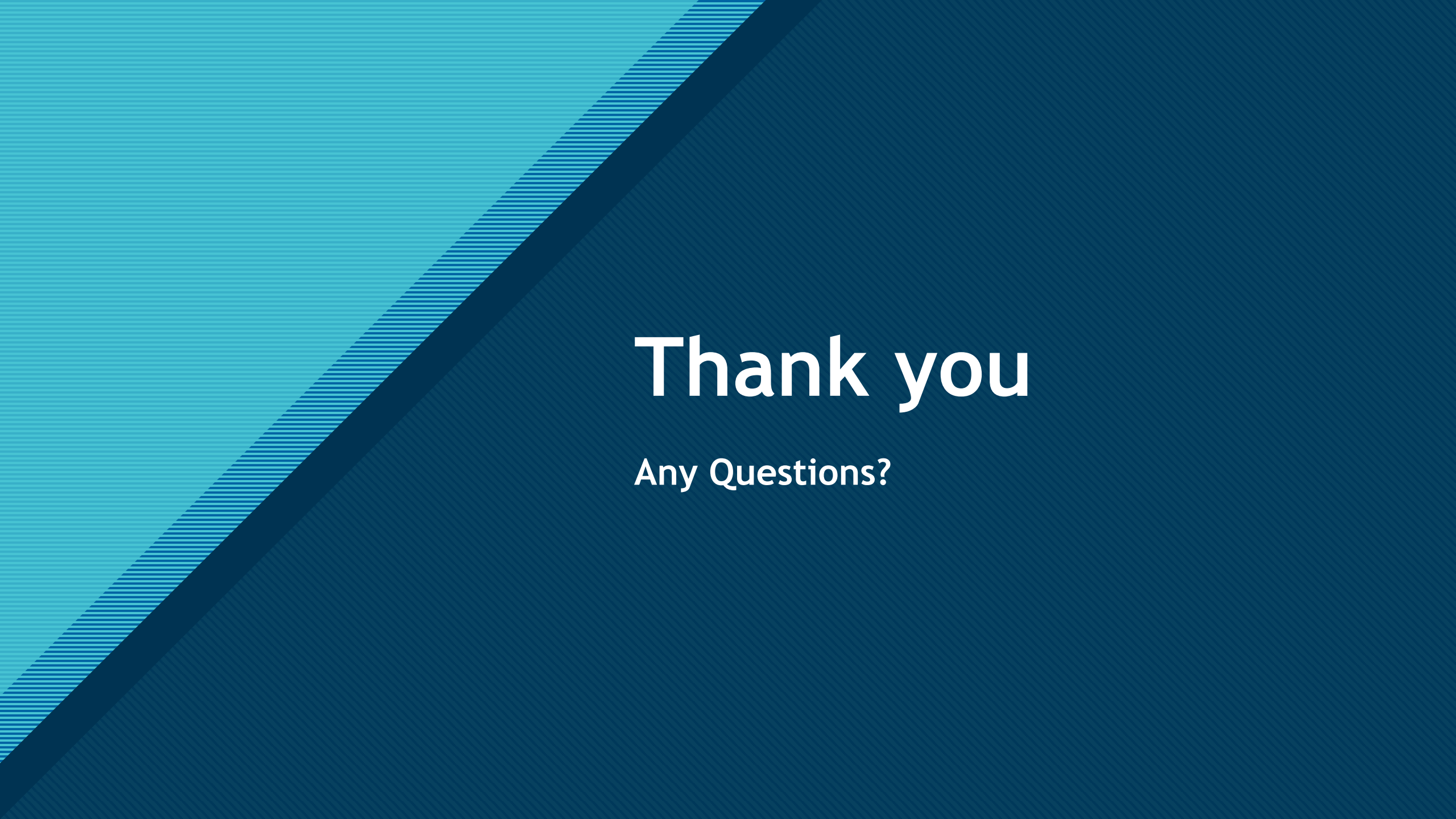


**“Reusable, Portable,
and Non-Invasive,
Virus Breath
Detector”**

Conclusion



- The current business position of Lion Laboratories will provide a successful platform for the development of a CDS.
- Existing market presence especially in the field of medical can help advance the development of the CDS for COVID testing.
- The use of Market Sensing techniques provides a good understanding of the existing experiences and pains of the customers for a device aimed for the COVID testing kit market.
- Such tools can also able to provide an understanding of the customer needs and desires as well as positions in which the device may gain some advantages compared with competitors.
- The overall marketing research also highlights a solution for the CDS to be adopted to further detect future viruses similar to COVID19.



Thank you

Any Questions?

Reference

Business Wales, 2023. Business Wales: Success Stories - Lion Laboratories. [Online]

Available at: <https://businesswales.gov.wales/export/success-stories/lion-laboratories>

[Accessed 28 February 2023].

Chernev, A., 2018. Strategic Marketing Management, 9th Edition. 9th ed. s.l.:Cerebellum Press.

Coherent Market Insights, 2022. Alcohol Breathalyzer and Drug Testing Equipment Market to Surpass US\$ 8,506.5 Million by 2030 - Coherent Market Insights. [Online]

Available at: <https://www.prnewswire.co.uk/news-releases/alcohol-breathalyzer-and-drug-testing-equipment-market-to-surpass-us-8-506-5-million-by-2030-coherent-market-insights-863721270.html>

[Accessed 02 March 2023].

eNose, 2023. eNose Home. [Online]

Available at: <https://www.enose-company.com/en/>

[Accessed 10 March 2023].

Fact.MR, 2023. <https://www.factmr.com/report/wireless-portable-medical-devices-market>. [Online]

Available at: <https://www.factmr.com/report/wireless-portable-medical-devices-market>

[Accessed 2 March 2023].

Future Market Insight, 2023. Drug Screening Market Outlook. [Online]

Available at: <https://www.futuremarketinsights.com/reports/drug-screening-market#:~:text=The%20drug%20screening%20market%20is,US%24%2032.4%20billion%20by%202033.>

[Accessed 02 March 2023].

Healthcare-in-Europe, 2023. SpiroNose: The electronic nose that knows about Covid-19. [Online]

Available at: <https://healthcare-in-europe.com/en/news/spironose-the-electronic-nose-that-knows-about-covid-19.html>

[Accessed 10 March 2023].

Khan, H. et al., 2022. The efficacy of market sensing and family-controlled board in the new product development performance of family firms in emerging market. Journal of Business Research, Issue 141, pp. 673-684.

Lion Laboratories, 2023. Lion Laboratories: Home. [Online]

Available at: <https://www.lionlaboratories.com/>

[Accessed 28 February 2024].

Market Research Future, 2023. Global COVID Testing Kit Market. [Online]

Available at: <https://www.marketresearchfuture.com/reports/covid-testing-kit-market-9715>

[Accessed 02 March 2023].

Office for National Statistics, 2020. Coronavirus and key workers in the UK. [Online]

Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/articles/coronavirusandkeyworkersintheuk/2020-05-15>

[Accessed 10 March 2023].

Ortchanian, P., 2020. Medium: Market Sensing: How to Stay Successful in Today's Unpredictable Market. [Online]

Available at: <https://medium.com/bain-public/market-sensing-how-to-stay-successful-in-todays-unpredictable-market-bc70667a77af>

[Accessed 27 February 2023].

Strategyzer, 2023. Value Proposition Canvas - Instruction Manual. [Online]

Available at: <https://www.strategyzer.com/resources/thank-you/the-value-proposition-canvas-instruction-manual?submissionGuid=97d81a79-2f4e-4e16-ac57-e50c3a50c729>

[Accessed 03 March 2023].

Strategyzer, 2023. Value Proposition Canvas Template. [Online]

Available at: <https://www.strategyzer.com/canvas/value-proposition-canvas>

[Accessed 03 March 2023].

Teece, D. J., 2007. Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance. Strategic Management Journal, Issue 28, pp. 1319-1350.

Trott, P., 2016. Innovation Management and New Product Development. Harlow, United Kingdom: Pearson Education Limited.

Trott, P., 2021. Innovation Management and New Product Development. 7th ed. Harlow United Kingdom: Pearson Education Limited.

Tu Cao, H. D., Deivasigamani, L. C., Stanly, R. J. & Sundel, R., 2012. IBM – Market Sensing. The Australian Journal of Business and Informatics, 5(1).

U.S. Food & Drug Association, 2023. Coronavirus (COVID-19) Update: FDA Authorizes First COVID-19 Diagnostic Test Using Breath Samples. [Online]

Available at: <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-first-covid-19-diagnostic-test-using-breath-samples>

[Accessed 10 March 2023].

Varga, D., 2020. All you need to know about the Value Proposition Canvas. [Online]

Available at: <https://www.digitalnatives.hu/blog/value-proposition-canvas/>

[Accessed 03 March 2023].